2020 Service Implementation Plan



ADOPTED NOVEMBER 2019

SOUNDTRANSIT

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INTRODUCTION

What is the Service Implementation Plan?

Background

Each year, Sound Transit prepares a Service Implementation Plan that guides delivery of ST Express bus, Sounder commuter rail, and Link light rail services. In coordination with the annual agency budget process, the Service Implementation Plan provides both a forward look at future service plans and a review of existing ridership and performance trends.

Contents

2020 Adopted Service Plan

This section identifies adopted major changes to Sound Transit services in 2020, including context of why changes were proposed as well as key themes that will guide service strategies for the next several years. This section also summarizes resources required to operate all lines of service.



Ridership & System Performance

This section summarizes ridership numbers by mode, route and corridor and describes the different performance measures as defined in Sound Transit's Service Standards and evaluates existing services to help inform why certain service changes were proposed in the 2020 Service Plan.

Service Equity Analysis

This section evaluates the 2020 Service Plan major service changes to ensure that changes to transit service are consistent with Title VI policies.

The ST Network (Route Profiles)

Route profiles highlight the performance of ST Express routes in relation to each other and provide context for service planners to identify potential changes in upcoming years. This year's revamped route profiles have an increased emphasis on the passenger experience by evaluating frequency, service time span, loading, and on-time performance of each route.



Sound Transit *Existing Service*

ST Express

ST Express bus offers fast, frequent, two-way service on 28 routes connecting Snohomish, King, and Pierce Counties. Sound Transit provides this bus service via service agreements with our transit partners: King County Metro, Pierce Transit, and Community Transit. ST Express provides service to over 50 transit centers and park-and-ride lots.



Tacoma Link

Tacoma Link is a 1.6-mile light rail passenger line that runs through the heart of downtown Tacoma. There are six unique stations complete with artwork that reflects the history and community of Tacoma. Trains run every 12 minutes during the day on weekdays and Saturdays, and every 24 minutes on Sundays all day and weekdays during the early morning and evening hours.



Sounder

Sounder commuter rail spans three counties, serving commuters on the north line from Everett to Seattle and on the south line from Lakewood to Seattle. Sound Transit owns the railway between Lakewood and Tacoma, and Burlington Northern Santa Fe Railway, owner of the railroad between Tacoma and Everett, operates Sounder service under a contract with Sound Transit. Amtrak provides maintenance for the Sounder fleet of locomotives and passenger cars.



Link

Link Light Rail operates on over 20 miles of alignment between the University of Washington Station in the City of Seattle and Angle Lake Station in the City of SeaTac, serving 16 passenger stations, including four stations in the Downtown Seattle Transit Tunnel (DSTT). King County Metro operates and maintains the system through an intergovernmental agreement with oversight by agency staff. Paratransit service is also operated by King County Metro within the Link service area.





Figure 1: Existing Sound Transit System Map

Service Change Process

Sound Transit's 2020 Service Implementation Plan (SIP) is part of a regular process of managing our regional network of ST Express bus, Sounder commuter rail and Link light rail services. Prepared annually in coordination with the agency budget, the SIP provides important details on service delivery for the upcoming year and plans for the future.

Sound Transit manages the transit network through service changes. Service changes are classified as either minor or major changes and occur in March or September of every year.. All major service changes include public participation and require approval by the Sound Transit Board of Directors. Any change classified as minor may be made without Board approval, allowing staff to be responsive in addressing minor service quality issues.

When proposing service changes, whether major or minor, Service Planning always considers these priorities shown below. We continually monitor our service to identify places with crowding or reliability issues and propose changes to the system to reflect changes in customer behaviors. Additionally, when the system changes, whether it's a freeway station closure or a new Link opening, we work with our partners to identify the transportation network will change and work on a plan that minimizes duplication while still enhancing regional mobility. Service Changes are also analyzed in the lens of Title VI policies to ensure service is equitably distributed across our service area to protect vulnerable populations. All these proposals are always brought to the customer prior to changes, and we review feedback on a regular basis and incorporate customer input in the planning process.



Service Planning Fundamentals

Major Service Change: changes service hours on a route by more than 25 percent OR moves a stop by more than ½ mile. Requires public participation and approval by the Board.

Service Quality: reduce crowding and improve reliability to support a quality customer experience.

Productivity: maximize the efficiency & effectiveness of transit investment.

Build Ridership: grow ridership in support of system expansion.

Service Equity: ensure service changes are consistent with Title VI policies.

Partner Coordination: plan an integrated transit network with our partner agencies.

Customer Input: incorporate customer input into the planning process.

Managing the Transit Network

Service Standards

Since 1998, Sound Transit has used its board-adopted Service Standards and Performance Measures to plan, monitor and manage Sound Transit services. This document:

- Describes how Sound Transit service should be designed to reflect the characteristics of a high-speed, limited-stop regional system.
- Sets guidelines used to design, evaluate and manage transit service with the objective of maximizing efficiency, effectiveness, and service quality in the system.
- Guides a multi-step process to identify the level and type of service that should be provided, as well as a process to implement any changes needed to meet established priorities.



For more information:

soundtransit.org/sip

servicechanges@soundtransit.org

1-866-940-4387

Service Changes

- **Development –** Sound Transit manages the transit network through service changes. Service changes may be developed out of four key processes:
 - **Performance Monitoring** – Identify services that do not meet service standards and evaluate options for improving performance as well as identify opportunities to meet demand for services that are performing well.
 - **Voter approved plans** – Completion of major high-capacity transit capital projects may result in modifying existing service to maximize network connectivity.
 - **Budget –** In coordination with voter approved plans, defines the limits to how much service Sound Transit is able to provide.
 - **Regional coordination with partner agencies –** Work with partner agencies to restructure service or to better facilitate transfers between local and regional service.
- **Title VI Evaluation –** Determine if potential adverse effects of service changes create an unfair burden on typically underrepresented communities.
- **Board Approval –** Major service changes are approved by the board as part of this document and the budget.
- **Implementation –** Service changes are made in March and September of each year.

Public Process and Board Approval

Each year the Service Implementation Plan is released publicly before a presentation to the Rider Experience & Operations Committee of the Board of Directors. In years with proposed major service changes, the public is given the opportunity to comment on any major service changes at open-house style meetings held in areas most directly affected by the proposed service changes. Prior to presentation to the Board of Directors, a public hearing is held allowing opportunities for comment on any major service changes. Customers and members of the public are encouraged to comment on the draft plan through email, letter, telephone, or in-person at a public meeting.

Sound Transit *Future Service*

SYSTEM EXPANSION

In 1996, voters in Central Puget Sound approved the Sound Move plan with a mandate to build a mass transit system connecting major urban centers in Snohomish, King, and Pierce counties. Covering more than 1,000 square miles, the Sound Transit District serves a population of over 3 million people. The Sound Transit District is composed of 40 cities, including most of the urban areas of King, Pierce, and Snohomish counties. Voters approved a second phase of mass transit, Sound Transit 2 (ST2), in 2008 and a third phase of mass transit expansion, Sound Transit 3 (ST3), in 2016. Under the plans, the regional light rail system will reach over 50 miles by 2024 expanding to Lynnwood, Bellevue, Overlake, and Federal Way. By 2041, Link will expand to over 110 miles with expansions to Everett, Issaquah, Kirkland, West Seattle, Ballard, and Tacoma. The Sounder commuter rail line will expand to DuPont, and have frequent peak service between Seattle and Lakewood. ST Express will continue to serve major regional travel corridors. New BRT lines will also serve SR 522 and I-405. Figure 2 shows the Sound Transit system map with the full build-out of voter-approved projects.

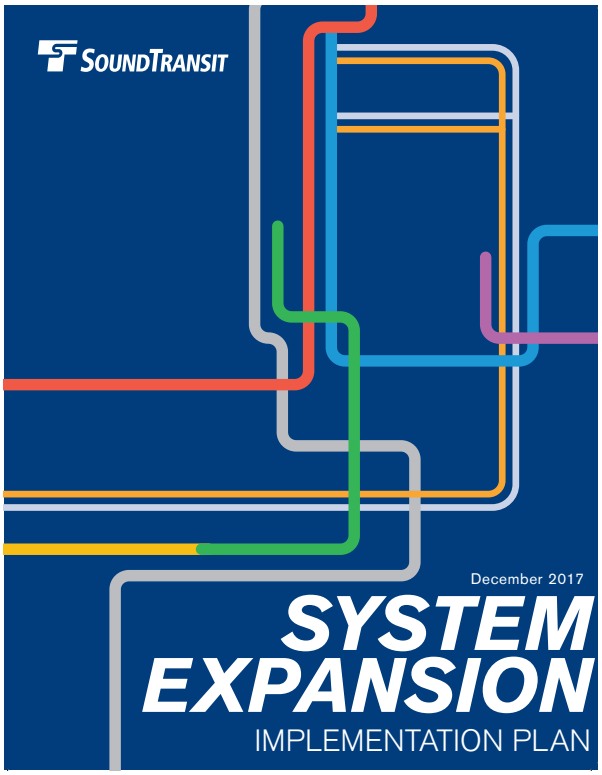






Figure 2: Approved Sound Transit Projects System Map

2020 SERVICE PLAN

What will change in 2020?

Overview

In 2020, Sound Transit riders will notice several changes that are designed to set the system up for our future expansion. Construction to integrate East Link into the existing Link system will cause significant light rail disruption during the first quarter. We'll also restructure ST Express service, in coordination with King County Metro, to improve service to Northeast King County. Riders on Sounder North and South Lines and Tacoma Link will experience little to no change in 2020.



KEY CHANGES FOR 2020

Connect 2020

As part of East Link light rail construction, Sound Transit's Connect 2020 project will tie East Link tracks into the current Link system at International District/ Chinatown Station.

For 10 weeks beginning in January, Link riders continuing through Downtown Seattle will need to switch trains at Pioneer Square Station via a temporary center platform. This will allow construction crews to close one track at a time and connect the new line.

Congestion, Reliability, Capacity

In keeping with our ongoing analysis of ST Express bus services, we may make additional changes to address congestion, on-time performance issues or overcrowding. Service Planning staff actively monitor service when region-wide changes happen, such as when buses adjusted pathways in Downtown Seattle, and we'll continue to refine and adjust schedules to best reflect new travel time conditions and changing passenger demands.

North Eastside Mobility Plan

King County Metro is planning several changes to streamline transit service and increase transit reliability in the north Eastside. After coordinating with Metro to develop a more integrated transit network in the SR- 520 corridor, Sound Transit is proposing the following changes to coincide with the Metro Route 255 restructure:

- Discontinue Route 540 with alternate service provided on restructured KCM Route 255.
- Discontinue a majority of Route 541 trips, temporarily preserving select trips where ridership demand is strongest to accommodate growing ridership.
- Implement new Route 544 between Overlake Village and South Lake Union, via S. Kirkland Park-and-Ride and SR-520, using saved resources from Routes 540 and 541.

Service Hours and Vehicles Needed

ST Express

Service in 2020 reflects an annualization of changes to service made in 2019 as well as the implementation of the North Eastside Mobility Plan. Minor service changes will focus on improving reliability to Title VI populations in 2020, where applicable, and addressing overcrowding.

YEAR		PLATFORM HOURS	PLATFORM MILES	PEAK VEHICLE COUNT
2018	Actual	795,319	16,327,548	258
2019	Estimated	816,500	16,785,400	261
2020	Estimated	829,400	17,004,100	260

Table 1: ST Express 2018-2020 Service Statistics

By Partner

Table 2 shows service levels by partner. Implementation of Route 544 will be handled by Pierce Transit from March to September of 2020, with route operation transferring to King County Metro in September 2020. *Peak vehicle counts reflect the maximum number of vehicles operated by the partner at any point in the year, and the sum will be greater than the peak vehicle amounts for ST Express shown above*.

	YEAR		PLATFORM HOURS	PLATFORM MILES	PEAK VEHICLE COUNT
Community Transit	2018	Actual	150,483	3,427,300	50
	2019	Estimated	158,700	3,619,300	54
	2020	Estimated	154,700	3,633,600	52
	YEAR		PLATFORM HOURS	PLATFORM MILES	PEAK VEHICLE COUNT
King County Metro	2018	Actual	303,200	4,863,482	101
	2019	Estimated	308,000	5,035,200	101
	2020	Estimated	309,800	4,851,500	102
	YEAR		PLATFORM HOURS	PLATFORM MILES	PEAK VEHICLE COUNT
Pierce Transit	2018	Actual	341,600	8,036,734	107
	2019	Estimated	349,700	8,130,826	118
	2020	Estimated	364,800	8,146,651	120

Table 2: ST Express 2018-2020 Service Statistics by Partner

Link

Changes in platform hours and miles reflect the 10-week Connect 2020 project, where four-car trains will run every 12 minutes rather than the regular schedule of a mix of two- and three-car trains every 6 minutes during peak periods. These hours and miles also reflect three weekends of partial shutdowns in the Downtown Seattle Transit Tunnel, which requires supplementary bus service.

YEAR		PLATFORM HOURS	PLATFORM MILES	PEAK TRAIN COUNT
2018	Actual	102,483	2,100,172	19
2019	Estimated	101,200	2,083,800	19
2020	Estimated	100,500	1,978,400	19

Table 3: Link 2018-2020 Service Statistics

Sounder

No major changes will occur in 2020. As a result, train platform hours and miles are not expected to change significantly.

YEAR		PLATFORM HOURS	PLATFORM MILES	PEAK TRAIN COUNT
2018	Actual	13,356	372,228	11
2019	Estimated	13,200	372,300	11
2020	Estimated	13,200	372,300	11

Table 4: Sounder 2018-2020 Service Statistics

Tacoma Link

No major changes will occur in 2020. As a result, train platform hours and miles are not expected to change significantly. Note that these estimates do not take into account potential reduced service due to Hilltop Tacoma Link Extension construction impacts.

YEAR		PLATFORM HOURS	PLATFORM MILES	PEAK TRAIN COUNT
2018	Actual	9,824	75,609	2
2019	Estimated	9,800	75,600	2
2020	Estimated	9,800	75,600	2

Table 5: Tacoma Link 2018-2020 Service Statistics

ST Express Service Plan

SERVICE CONTEXT

ST Express currently operates 28 routes throughout the three-county service area. Many of these routes serve downtown Seattle, with other routes operating to downtown Bellevue or serving as connectors to Sounder service.

The year 2019 saw significant changes to the ST Express network. Route 550 now serves surface streets in Downtown Seattle after having a reliable pathway in the Downtown Seattle Transit Tunnel for years. Additionally, the Montlake Freeway Station closed in June 2019, removing an important transfer hub for SR-520 routes. The year ahead will be relatively quiet for ST Express as Sound Transit continues to prepare for major expansions of the regional rail network.

2020 SERVICE STRATEGY

The 2020 service plan for ST Express aims to improve the efficiency and utility of services for the regional network. Below are three key themes that guided this year's adopted service changes.

Transit Service Integration

Our partner agencies complement our service by offering connections to many other regional and local routes. By integrating our service, we can maximize the efficiency and effectiveness of regional transit investments.

We will continue to work with our partners to reduce duplicative routes and provide regional connections to local services. Changes this year related to service integration will focus on King County Metro's implementation of the North Eastside Mobility Plan, scheduled to take place in March 2020.

Improve Speed and Reliability

Service changes address as many reliability concerns as possible, sometimes shifting resources from lower-performing to higher-performing service. Even with limited resources, ST Express will make runtime adjustments to best reflect existing and future conditions. Additionally, Sound Transit will continue to work with partner jurisdictions to mitigate existing issues and improve regional mobility.

Reduce Overcrowding

Several changes adopted in this document identify resources from underperforming services to be reallocated throughout the system to address outstanding issues, including overcrowding on certain peak trips. These small tweaks to select routes increase the flexibility to respond to ongoing ridership pattern shifts from construction impacts and congestion.

Increase Productivity

In certain corridors with either underperforming services or excessive running time, Service Planning will evaluate to see whether performance can meet our minimum target standards, and if not, reallocate underperforming service to improve reliability on key routes.

DEVELOPMENT OF SERVICE CHANGES

Sound Transit manages the transit network through service changes, which occur in March and September of every year. Service changes are classified as either minor or major changes. All major service changes include public participation and require approval by the Sound Transit Board of Directors. Any change classified as minor may be made without Board approval, allowing staff to be responsive in addressing minor service quality issues.

Major Service Changes

Major service changes meet one or more of the following criteria and require public outreach and Board approval:

- Changes a route's weekly platform hours by more than 25 percent
- Moves the location of a stop by more than ½ mile
- Closes a stop without an alternative stop within ½ mile

Minor Service Changes

Minor service changes meet one or more of the following criteria and are implemented administratively:

- Changes a route's weekly platform hours by less than 25 percent
- Makes minor adjustments to a schedule
- Temporarily closes a stop or adjusts route alignment due to construction

When a service change saves resources, those resources will be reinvested into the same subarea in order to maintain equitable resource distribution.

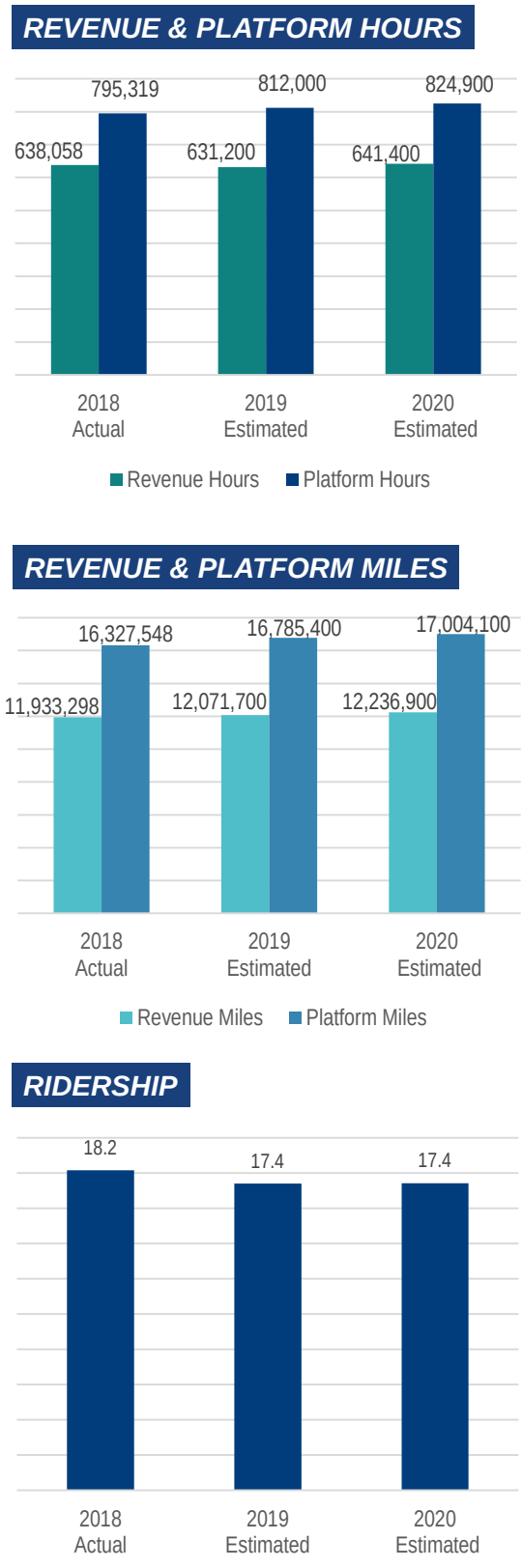


Figure 3: ST Express 2018-2020 Service Statistics

Link *Service Plan*

SERVICE CONTEXT

Since the opening of the extensions to University of Washington and Angle Lake in 2016, ridership has grown significantly. Sound Transit has responded by allocating as many three-car trains as possible during peak and off-peak periods. Analysis conducted after the Downtown Seattle Transit Tunnel became rail-only has resulted in improved running times and a reallocation of vehicles to provide additional three-car trains during peak periods.

2020 SERVICE STRATEGY

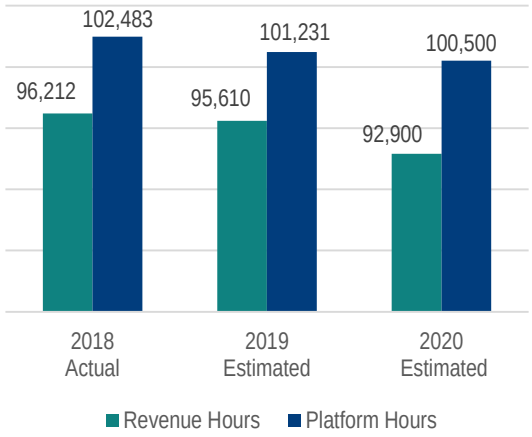
While there is limited ability to respond due to all available resources are being utilized during weekday peak periods, Sound Transit will continue to monitor ridership and respond where possible, especially during special events.

Revenue and platform hour projections are lower compared to prior years due to the Connect 2020 project. More information is available on the next page related to the Connect 2020 project occurring in January through March 2020.

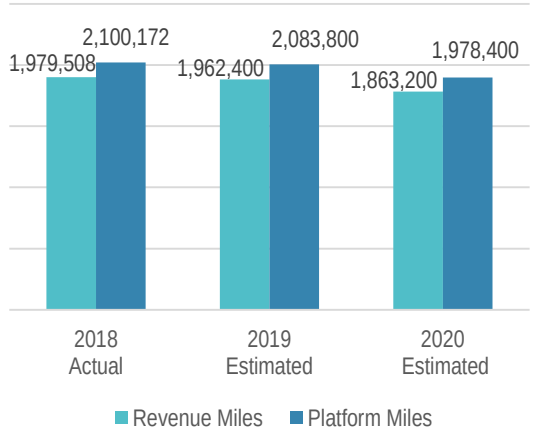
Why are there two-car trains during the peak? Can't you add more?

Currently, Link operates three-car trains all day with additional two-car trains during peak periods. With our fleet of 62 vehicles, we cannot make all trains have three cars without a reduction in frequency or other significant schedule changes. The vehicles not in service may be in for longer term repairs and maintenance, or set aside in case a train in service has a mechanical problem.

REVENUE & PLATFORM HOURS



REVENUE & PLATFORM MILES



RIDERSHIP

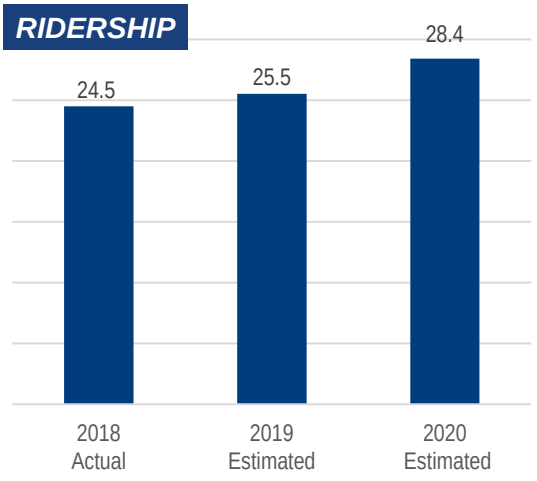


Figure 4: Link 2018-2020 Service Statistics

CONNECT 2020

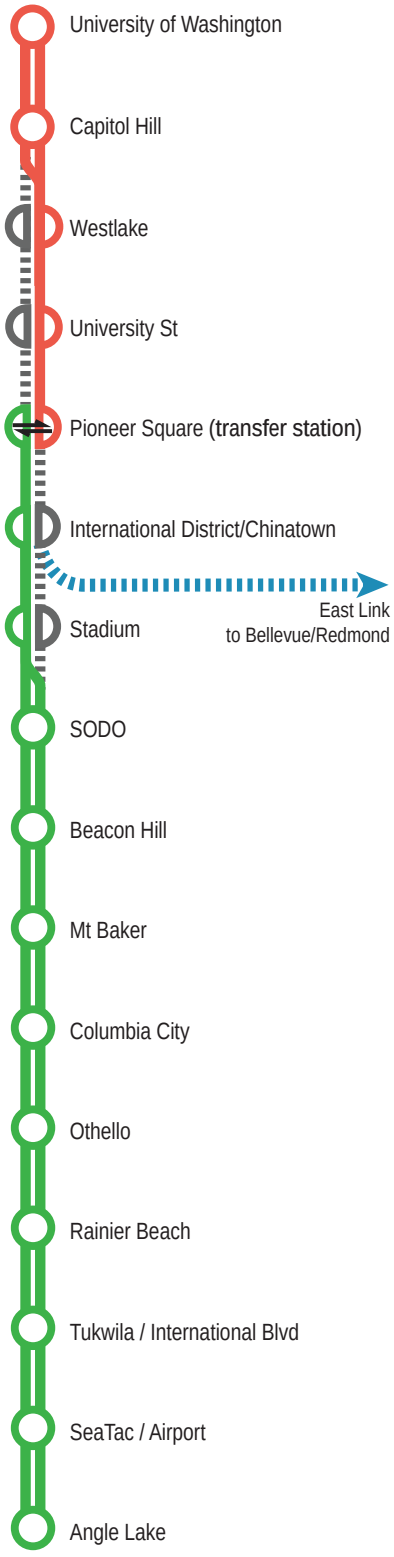
Link light rail is coming to the Eastside in 2023, with 10 new stations serving Judkins Park, Mercer Island, Bellevue and Overlake. As part of East Link construction, in early 2020 Sound Transit will begin connecting the new line to the current tracks at International District/Chinatown Station.

For 10 weeks between January and March, parts of International District/Chinatown Station will close so crews can build the rail connections that will allow East Link to serve downtown Seattle and beyond.

During the 10-week construction period, Link will operate as two lines. One line will run from the University of Washington to Pioneer Square, and the other will run from Angle Lake to Pioneer Square. Note that trains will only serve one side of the station at University Street and Westlake Stations. Both north- and southbound riders will board from the same platform. Riders traveling through Pioneer Square Station will transfer between trains on a new, temporary center platform.Trains coming from the north and south will be timed to meet at Pioneer Square Station to facilitate transfers.

Because both north- and southbound trains will be sharing tracks, trains will run less often. Normally, trains run every 6 minutes during weekday peak hours and every 10-15 minutes at other times. During Connect 2020, trains will run every 12 minutes at all times of day, 7 days per week. Though riders will have a longer wait for trains, we will provide as much capacity as possible by operating all trains as longer, four-car trains.

There will also be three weekend closures of International District/Chinatown Station, and on these weekends shuttle buses will connect riders between SODO and Westlake, serving all intermediate stations on surface streets.



Tacoma Link *Service Plan*

SERVICE CONTEXT

Tacoma Link has not changed its service model since the opening of the Commerce Street station in 2011. Service operates every 12 minutes during weekdays and Saturdays, while operating every 24 minutes on weeknights and Sundays.

Ridership is primarily driven by special events at the Tacoma Dome as well as connections between Tacoma Dome Station and UW Tacoma or the Theater District.

2020 SERVICE STRATEGY

Ongoing construction of the Hilltop Tacoma Link Extension may disrupt service over 2020 as we build a new Theater District Station and connect the extension to the existing tracks. Temporary shutdowns of about a week are scheduled as construction progresses, but are not expected to significantly impact the budgeting or ridership estimation of the Tacoma Link.

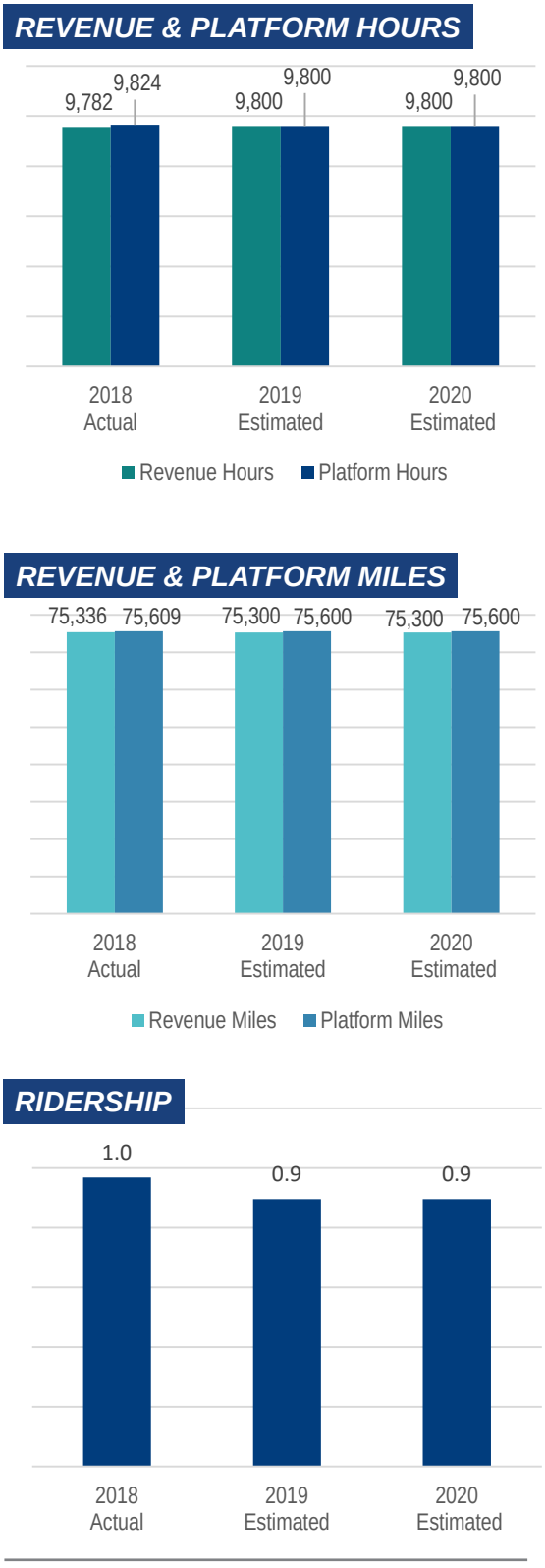


Figure 5: Tacoma Link 2018-2020 Service Statistics

Sounder *Service Plan*

SERVICE CONTEXT

Sounder service has added three round trips in the past three years, with the addition of a midday round trip in September 2016 and two peak round trips in September 2017. These trips have been well utilized, resulting in ridership increases of 15 percent from 2015 to 2017.

2020 SERVICE STRATEGY

Prior trip additions were part of the ST2 measure, and with them complete, there are no planned major changes in 2020 for Sounder. Minor changes to Sounder schedules may arise from the scheduling of Amtrak Cascades trains which share tracks with Sounder.

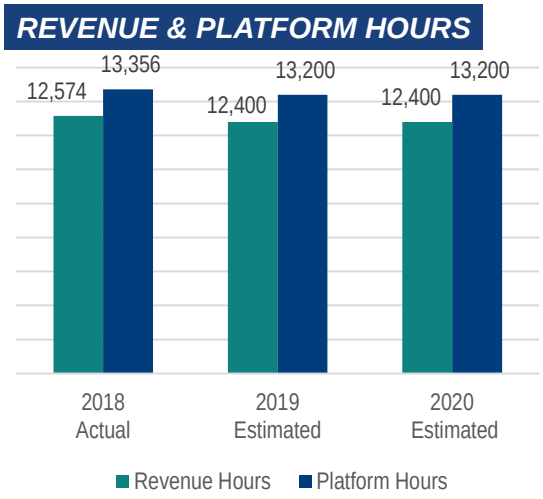
Two factors are likely to have the greatest influence on 2020 Sounder ridership: station construction and ST Express service changes. The Puyallup and Sumner Station Parking and Access Improvement projects may impact Sounder ridership due to the closure of parking facilities and capacity improvements. Increasing congestion on I-5 and overcrowding on ST Express may push people toward Sounder, which operates in its own dedicated right-of-way.

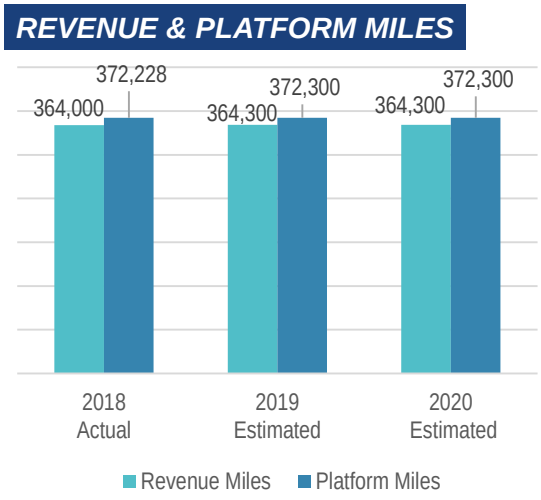
Sound Transit will continue to plan for serving select major events in the Puget Sound region, guided by criteria established in the Service Standards and Performance Measures document.

Why don't we run later weekday trains or more weekend service?

Sound Transit coordinates Sounder service with BNSF, which owns the majority of the track on which Sounder operates. These tracks are highly trafficked by freight, Amtrak and Sounder trains, and adding additional trips during peak commute hours would require renegotiation of schedules.

In addition, minimum rest periods and work schedules for train conductors dictate how late we can run service.





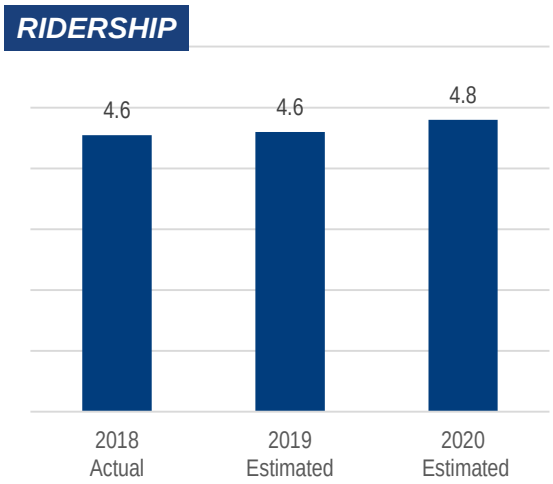


Figure 6: Sounder 2018-2020 Service Statistics

Adopted 2020 Service Changes

Below are a summary of the adopted changes for the 2020 Service Implementation Plan. These have been revised based on public feedback in September and October of 2019. More details can be found on subsequent pages.

MAJOR SERVICE CHANGES (REQUIRE BOARD APPROVAL)

Route	Description	Page
540	Discontinue route as part of North Eastside Mobility Plan	20-24
541	UPDATED: ~~Discontinue route as part of North Eastside Mobility Plan~~ Discontinue most Route 541 trips, temporarily retain 9 trips to accommodate growing ridership	20-24
544	Introduce new route operating between Overlake Village and South Lake Union via South Kirkland Park-and-Ride	20-24
566	Discontinue stops at Kennydale and Newport Hills in the off-peak direction	25
577	Reallocate weekend service to additional Route 578 service operating between Auburn and Downtown Seattle	25

Table 6: Potential Major Service Changes for Implementation in 2020

POTENTIAL MINOR SERVICE CHANGES (DO NOT REQUIRE BOARD APPROVAL)

Corridor	Description	Page
I-5 North I-5 South SR 520 I-90	Evaluate reliability and travel time assumptions for Downtown Seattle operations on 2nd, 4th, 5th Avenues and adjust runtimes to better reflect travel conditions with buses out of the Downtown Seattle Transit Tunnel	26
ALL	Evaluate travel times and speeds on regional highway corridors to determine where segments have congestion issues; mitigate and adjust service as needed to align with customer expectations.	26
I-5 North	Evaluate travel time competitiveness and reliability where Route 510 and 512 trips overlap; adjust service as needed	26
SR 522	Identify trips with reliability and crowding issues in conjunction with King County Metro Route 312	26
Route 550	Continue monitoring service on Route 550 with the implementation of the September 2019 service change	26

Table 7: Potential Minor Service Changes for Implementation in 2020

Public Engagement on 2020 Service Changes

Sound Transit conducted outreach for the 2020 SIP both in person and via online channels. Public Comment was available between September 7 and October 7, which allowed staff to summarize feedback and respond with revised proposals if necessary.

IN-PERSON OUTREACH

Sound Transit staff were out in the field discussing proposed changes at the following locations:

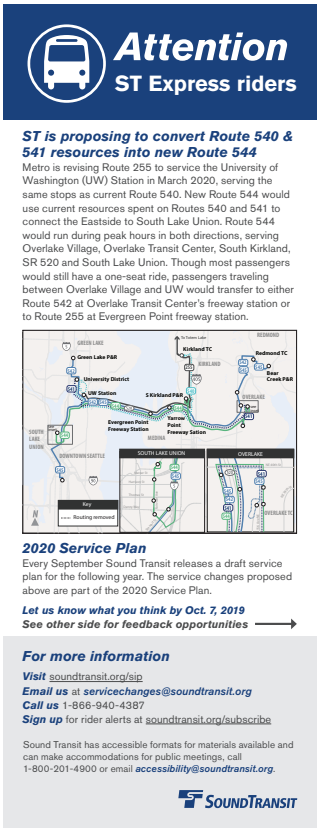
Drop-in Sessions	Street Teams at Bus Stops
■ S Kirkland Park-and-Ride Tue 9/24 6:30-9:30am	■ Overlake Village Park-and-Ride Tue 9/17 3:30-7:00pm
■ SR 520 / NE 40th St Freeway Stops Wed 10/2 3:30-7:00pm	■ Overlake Transit Center, Bay 8 Thu 9/19 6:30-9:30am
■ South Lake Union Farmers Market Thu 10/3 10:00am - 2:00pm	■ UW Station Bay 1 Mon 9/30 3:00-6:30pm

Table 8: Summary of Outreach Event locations

In addition to the public outreach events, Sound Transit spoke to Microsoft employees to discuss how these changes around Overlake would impact their commutes. Across all outreach events, staff engaged with more than 700 customers to solicit feedback on the proposals. A summary of the themes heard at these outreach events can be found in Appendix B.

ONLINE OUTREACH

Additionally, customers were invited to provide comments online through the survey form found at soundtransit.org/SIP or emails to servicechanges@soundtransit.org. Advertisements on Facebook and Twitter as well as emails from Sound Transit to people signed up to recieve planning updates also solicited feedback from customers by directing them either to an in-person event or to the online survey. Nearly 10,000 people received communications from Sound Transit regarding the proposals for this year's Service Plan. We also received 377 survey responses, which alongside the in-person outreach were used to help refine proposals along the SR-520 corridor. A summary of the themes heard in the surveys as well as selected comments can be found in Appendix B.



Attention
ST Express riders

ST is proposing to convert Route 540 & 541 resources into new Route 544

Metro is revising Route 255 to service the University of Washington (UW) Station in March 2020, serving the same stops as current Route 540. New Route 544 would use current resources spent on Routes 540 and 541 to connect the Eastside to South Lake Union. Route 544 would run during peak hours in both directions, serving Overlake Village, Overlake Transit Center, South Kirkland, SR 520 and South Lake Union. Though most passengers would still have a one-seat ride, passengers traveling between Overlake Village and UW would transfer to either Route 542 at Overlake Transit Center's freeway station or to Route 255 at Evergreen Point freeway station.

2020 Service Plan

Every September Sound Transit releases a draft service plan for the following year. The service changes proposed above are part of the 2020 Service Plan.

Let us know what you think by Oct. 7, 2019
See other side for feedback opportunities →

For more information

Visit soundtransit.org/sip
Email us at ***servicechanges@soundtransit.org***
Call us 1-866-940-4387
Sign up for rider alerts at soundtransit.org/subscribe

Sound Transit has accessible formats for materials available and can make accommodations for public meetings, call 1-800-201-4900 or email ***accessibility@soundtransit.org***.

SOUNDTRANSIT



North Eastside Mobility Plan - SR 520 Changes

In partnership with King County Metro, Sound Transit developed an integrated restructure of bus service on the SR 520 corridor. The process included extensive public outreach and engagement with the cities of Redmond and Kirkland. Leveraging changes to KCM service approved by the King County Council in July 2019, a new budget-neutral ST Express service between Redmond, Kirkland and South Lake Union could be implemented by repurposing existing resources.

The concept of restructuring ST Express to better serve South Lake Union has been part of briefings with senior leadership and Board members since 2017. Media coverage and presentations to Eastside elected officials have consistently confirmed Sound Transit's commitment to participating in the restructure. This proposal is being included in the 2020 Service Implementation Plan to be adopted in time for a March 2020 implementation in conjunction with Metro.

SUMMARY OF ADOPTED CHANGES

To develop a more integrated transit network in the SR-520 corridor, alongside the Metro Route 255 restructure, Sound Transit is proposing the following changes in the corridor as shown in Figure 7:

- Discontinue Route 540 (Kirkland – U. District). Customers would shift to restructured Metro Route 255 (Totem Lake – Kirkland – UW).
- Reduce the service span of Route 541, preserving service where ridership demand is greatest, partially in response to customer feedback as well as the shift in ridership from the Montlake Freeway Station closure.
- Implement new Route 544 between Overlake P&R and SLU, via S. Kirkland P&R and SR-520, using saved resources from Routes 540 and 541.

HOW THIS PROPOSAL HAS EVOLVED

Based on feedback, the Route 544 proposal has been scaled back to operate every 15 minutes, with some Route 541 trips restored to alleviate capacity concerns between UW and East King County. Below are some themes heard during the outreach process and how Sound Transit has adjusted the proposal in response:

- **Add more 542, crowding and 40-foot buses are causing capacity issues:** Route 541 will continue to provide some capacity across SR-520 to address recent overcapacity concerns on Route 542. Much of the overloads have occurred between Overlake and UW.
- **Montlake Freeway Station closure has already made travel more difficult, now another change:** While we were unable to restore all Route 541 trips to UW, we monitored the ridership patterns and have restored some trips where ridership demand is greatest to address concerns about access.
- **Overlake P&R users would have an additional transfer with 544:** Limited Route 541 trips will remain in service, providing a one-seat ride from Overlake P&R and the University of Washington.
- **It will take longer and be a more difficult trip to UW:** Route 541 will remain on select trips, providing direct park-and-ride access from East King County to the UW Campus.
- **The original proposal reduces UW-Eastside service:** Most customers who provided this feedback were likely unaware of the Route 255 change that will occur simultaneously when these changes are implemented.
- **South Kirkland deviation adds delay for Overlake customers:** No changes were proposed as a result of this feedback.

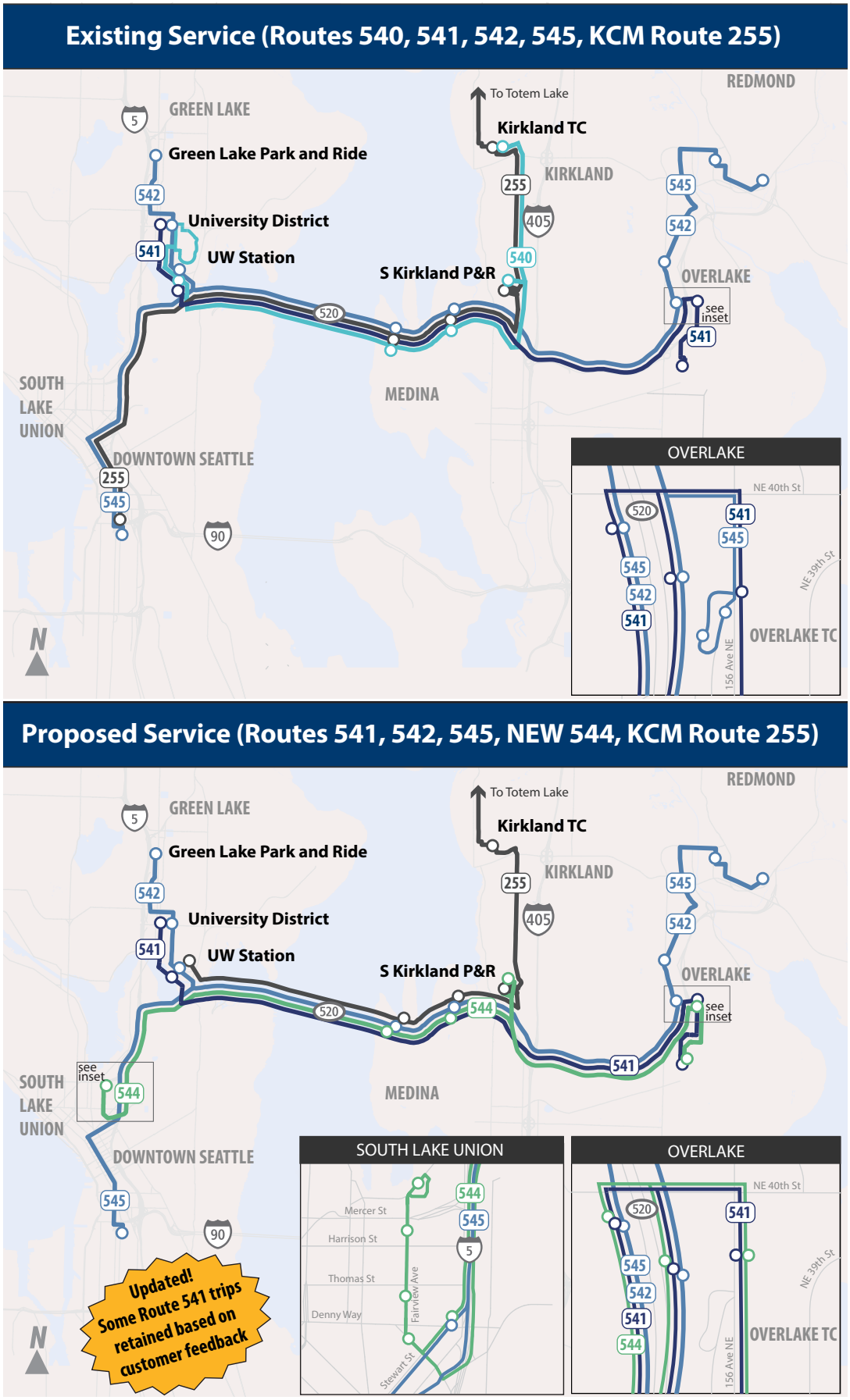


Figure 7: Summary of Sound Transit SR-520 adopted changes

DISCONTINUE ROUTE 540

Improve Corridor Integration

With the King County Metro implementation of the North Eastside Mobility Plan in March 2020, Route 255 will be restructured to serve UW Station, duplicating existing ST Express Route 540 (Kirkland-U. District) service. Sound Transit is proposing discontinuing Route 540, with resources shifted to fund the new Route 544.

Customer Impacts and Benefits

With a restructured Metro Route 255, customers would gain an all-day, all-week frequent service between Kirkland and the University of Washington, compared to infrequent peak-only service on Route 540 today.

However, an estimated 145 customers (or 15%) of current Route 540 customers along 15th Ave NE and Stevens Way, would have to walk up to 0.6 miles or transfer to local services to access Metro Route 255 along Pacific St or UW Station.

REDUCE ROUTE 541 SERVICE LEVELS

Reduce Low-Performing Route 541 Trips

Route 541 (Overlake P&R – U. District), a peak-only route, has ranked in the 4th quartile in terms of productivity metrics since it began operations in March 2016. Sound Transit's Service Standards and Performance Measure outline that two years after a route is implemented, it can be reevaluated for performance and changes can be recommended to improve productivity and efficiency.

However, with recent changes to the corridor resulting in shifting ridership patterns, we're proposing to maintain Route 541 ridership when it is strongest. Nine Route 541 trips will now remain, supplementing Route 542 and Metro Route 255 in providing capacity to East King County.

Customer Impacts and Benefits

The updated proposal greatly reduces impacts on Route 541 riders. The primary customer impact will be an up to 10-minute wait for Route 542 riders, as a result of reductions in Route 541 service during early or late portions of the peak hour.

Existing			March 2020 Service Change		
Route	Frequency	Span	Route	Frequency	Span
540	26 min peak	6:30 – 9:30 AM	Discontinued, Use KCM Route 255		
541	15 min peak	6:40 – 9:20 AM 3:00 – 7:00 PM	541	9 trips	7:30 – 8:30 AM (EB) 4:40 – 6:00 PM (WB)
542	15-20 min peak 30 min offpeak	5:30 AM – 10:00 PM	542	15-20 min peak 30 min offpeak	5:30 AM – 10:00 PM
544 New Route			544	15 min peak	6:10 – 9:10 AM 3:30 – 6:30 PM

Table 9: Existing and Future SR-520 corridor service levels

ROUTE 544 SERVICE PLAN

Implement New Route 544

Using resources saved from existing Routes 540 and 541, Sound Transit would reinvest those hours into the SR-520 corridor by creating new direct ST Express service between the Eastside and South Lake Union, Route 544. This route would operate every 15 minutes in both directions and operate during peak periods only. We expect to provide 52 trips total each weekday on this new route.

Route 544 would serve major park-and-ride facilities and transit centers on the Eastside. In Seattle, Route 544 would use Stewart St and Fairview Ave to provide access to South Lake Union.

Public consultation confirmed a renewed interest in a route serving South Lake Union. Based on feedback from this SIP and previous outreach efforts in the corridor, direct connections to the SLU market are a high priority for Eastside customers and stakeholders. However, with the recent ridership gains on Route 541 and 542 as a result of the closure of the Montlake Freeway Station, this proposal was scaled back in terms of frequency.

This route also provides additional capacity on the busiest part of the corridor between Overlake and north downtown Seattle and maintains connections between S. Kirkland and the Denny Triangle area in north downtown Seattle. With the truncation of Metro Route 255 at the University of Washington Station, there may otherwise have been additional demand on Route 545 which would continue to serve downtown. Maintaining a connection via Route 544 would benefit a significant number of riders. By adding this service and seating capacity in the busiest part of the corridor, Sound Transit will alleviate standing loads and overcrowding on Route 545 in the peak periods, benefiting approximately 5,000 riders.

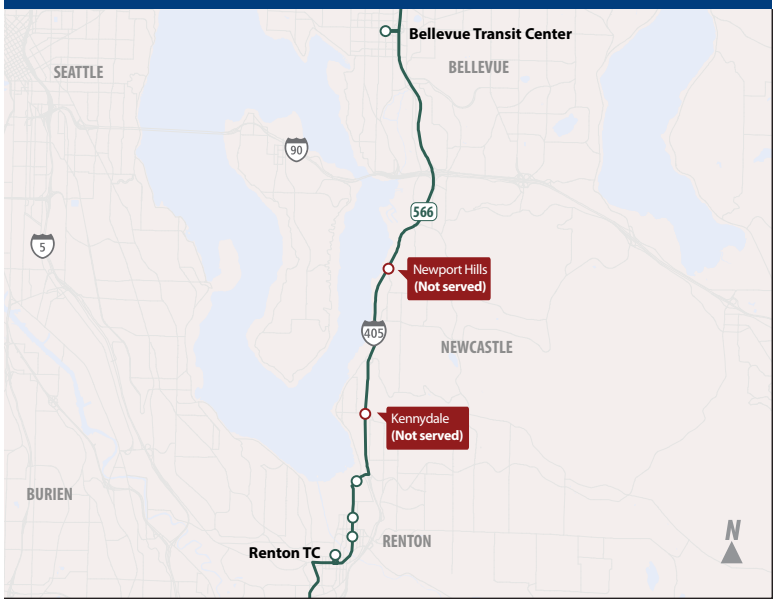
Direction	AM Peak Frequency	AM Peak Service Spans	PM Peak Frequency	PM Peak Service Span	Total Trips
To Eastside (EB)	15 min	6:10 – 9:10 AM	15 min	3:30 – 6:30 PM	26 trips
To SLU (WB)	15 min	6:10 – 9:10 AM	15 min	3:30 – 6:30 PM	26 trips

Table 10: Route 544 Service Plan in March 2020

Other Adopted 2020 Major Service Changes by route

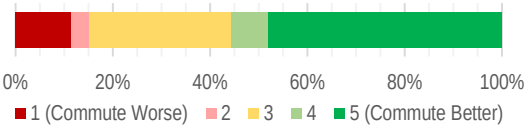
ROUTE 566 - DISCONTINUE KENNYDALE/NEWPORT HILLS STOPS

Strategy : Increase Productivity



Sound Transit added these stops during off-peak hours in the off-peak direction to mitigate the effects of East Link construction, but the service pattern has proven complex and confusing to customers. Total daily ridership for the two stops is just 16 boardings, and the stops delay trips as buses must leave HOV lanes to access right-side exits. Route 560 would continue to serve those stops during all service hours.

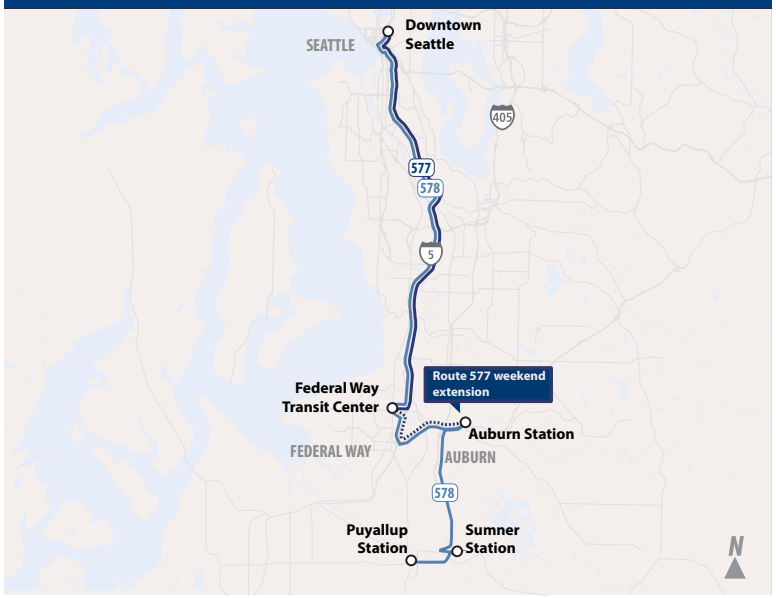
Feedback on this proposal was positive, with an average score of 3.8 out of 5.



Daily customer impact: 16 passengers

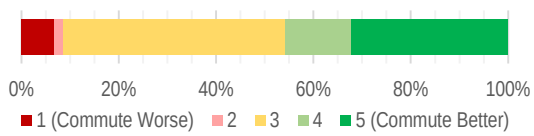
ROUTE 577/578 - IMPROVE AUBURN WEEKEND SERVICE

Strategy : Build Ridership



Sound Transit would convert Route 577 to operate as Route 578 trips on Saturdays and Sundays. Current Route 578 trips would continue to serve Sumner and Puyallup, but the new Route 578 trips would end in Auburn. The change effectively doubles weekend service between Federal Way and Auburn and makes more efficient use of operator layover time. In addition, all trips would use the current 578 routing in downtown Seattle, and Sound Transit would eliminate the current weekend 577 routing via Pine Street.

A plurality of customers did not have an opinion on this change, but people who had an opinion generally had positive feedback, with an average score of 3.6 out of 5.



Daily customer impact: None since existing service levels between Federal Way and Seattle remain intact.

Minor ST Express Service Changes Considered

Note: This is not an exhaustive list, and it represents an initial assessment of current and emerging conditions. Other issues may arise in the upcoming year that Service Planning will need to respond to. Changes presented here are not subject to Board approval.

IMPROVE RELIABILITY

Downtown Seattle: Evaluate travel times on 2nd, 4th, 5th Avenues, as well as Stewart St and Olive/Howell to identify where congestion is worsening through downtown Seattle.

- Adjust travel times through downtown as needed to ensure consistency between routes.
- Work with KCM and SDOT to evaluate pathways through Seattle for travel time improvements.

Regional Corridors: Evaluate travel times and speeds on regional highway corridors to determine where segments have congestion issues.

- Adjust running times to better reflect real conditions to ensure subsequent trips start on time.
- Reallocate underperforming service to improve reliability on key routes.



REDUCE CROWDING

SR-520: Evaluate ridership and travel time patterns to identify impacts of the Montlake Freeway Station closure and loss of Montlake Blvd off-ramp bus-only lane as well as the North Eastside Mobility Plan implementation.

I-5 North: Identify ridership trends between Seattle and Snohomish County after the addition of two new southbound trips in March 2019.

- Evaluate whether new service resulted in ridership shifts or new passengers.
- Refine service to best meet needs of customer markets.

Analyze Route 522 ridership patterns in conjunction with King County Metro Route 312 between Bothell and Seattle to identify points of overcrowding and shift times to reduce overcrowding issues.

INCREASE PRODUCTIVITY

Refine Run Times on Route 550. After the move to surface streets in March 2019, Sound Transit adjusted runtimes in September 2019 to better reflect actual conditions. Additional analysis post-September service change will identify whether runtimes or trip times need to be further refined. Any potential savings in platform hours may be reinvested into the system where possible.

Additional items for Service Planning to investigate in 2020 include:

- Addressing vehicle overcapacity at existing layover terminals.
- Ensuring sufficient capacity on each trip to meet service standards and maintain existing fleet requirements.

RIDERSHIP & PERFORMANCE

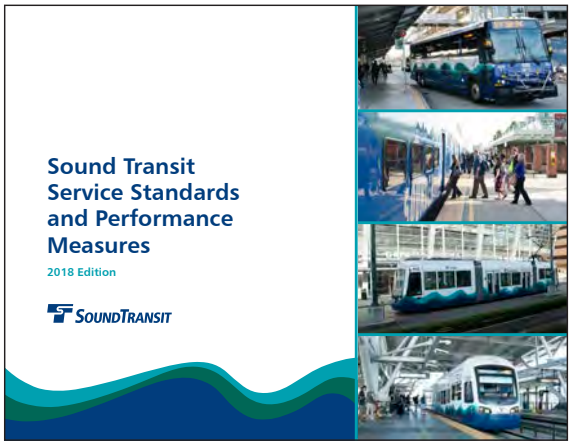
Benchmarking usage, productivity and customer experience

INTRODUCTION

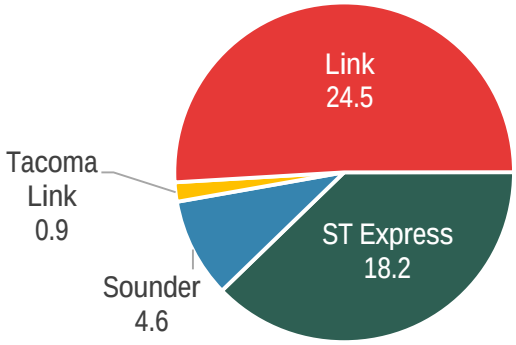
Sound Transit, with its two light rail lines, two commuter rail lines, and 28 express bus routes, serves as an integral part of the regional transit system in Central Puget Sound. This section begins to explain how we measure performance of our services, why we use these metrics in our assessment of performance and driving meaning from the results. Ridership, service effectiveness and service quality are evaluated both at the modal level and the route level.

PERFORMANCE MEASUREMENT

Service performance measures provide the framework for evaluating service. Sound Transit evaluates service based on three performance areas: ridership, productivity, and service quality. Each of these areas is analyzed on a system, corridor, and/or route level each year. Ridership analysis is presented annually in this document, with targets based on the annual budget process. Monthly ridership numbers are presented to the Board as part of regular reporting. This section details how productivity and service quality are measured each year. For some measures, there are associated service standards, or thresholds, a route must achieve to justify service. If the standards are not met, service delivery on that route will be re-evaluated. A summary of the metrics for productivity and service quality are shown on the next page.



2018 RIDERSHIP



The year 2018 set a new record for ridership on Sound Transit services, building on Link route extensions in 2016 as well as additional service on Sounder. Since service began on ST Express in 1999 through the end of 2018, Sound Transit has carried over 420 million passengers throughout the Puget Sound region, carrying nearly 48.2 million passengers in 2018 on its buses and trains. In 2018 system-wide, Sound Transit averaged almost 160,500 boardings each weekday.

Link and Sounder experienced gains in ridership in 2018, both fueled by service expansions in 2016 and 2017. Link ridership set a new record of 24.5 million boardings in 2018, while Sounder with the two new roundtrips in September 2017 set a new annual ridership record in 2018 of over 4.5 million trips.

Tacoma Link experienced ridership declines in 2018 due to a 6-month renovation at the Tacoma Dome during which no events occurred. Meanwhile the Tacoma Dome Station Parking garage saw the temporary closure of 200 parking stalls and extensive construction activities as part of a mid-life rehabilitation project.

ST Express ridership was down in 2018 as the Rainier Freeway Station closed in September 2018, resulting in longer travel times for East King County riders. Additionally, Park-and-Ride closures in 2017 as well as regional congestion continued downward pressure on ST Express ridership.

PRODUCTIVITY

Productivity is determined by four key performance indicators:

MEASUREMENT		HOW	WHY
	Boardings per Trip	Number of passenger boardings for each scheduled one-way trip	Allows us to identify whether buses are being effectively utilized throughout the system or whether we can shift resources around
	Boardings per Revenue Hour	Number of passenger boardings during one hour of scheduled revenue service, including layover time	Combined with Boardings per Trip, helps us identify whether we are efficient in our service delivery
	Subsidy per Boarding	Net cost of service (operating cost minus fare revenue) divided by the number of passenger boardings, with numbers based on a full fiscal year	Identifies how we are stewards of public funds and how expensive per passenger our service is to operate
	Passenger Miles per Platform Mile	Passenger miles by the number of vehicle platform miles traveled in a full year	One way to identify the utilization of our service - through a combination of service operated and the distance people travel to see whether buses are full for long segments

SERVICE QUALITY

Sound Transit evaluates service quality based on passenger load, on-time performance, customer complaints, and trips operated as scheduled.

MEASUREMENT		HOW	WHY
	Passenger Load	The percent of trips that have passengers on the vehicle exceeding the vehicle's capacity or the amount of standing time on each vehicle	The passenger load standard must balance the efficient allocation of vehicles (seat utilization) with a comfortable rider experience (access to seating for most of the trip)
	On-Time Performance	The percentage of trips are arriving at time points early, late, or on time	Service reliability is important for customers who utilize our service. Unreliability means overcrowded vehicles, missing trips or late appointments
	Customer Complaints	The number of complaints received by Sound Transit for each route/mode, normalized by the number of boardings	Customer satisfaction helps identify service strengths or weaknesses. A high volume of complaints related to a specific service attribute can inform service change decisions
	Operated as Scheduled	The percentage of scheduled trips that were operated in service	One measurement of service delivery - missed trips significantly impact subsequent trips as well as passenger sentiment

ST Express Ridership & Performance

ST Express recently has seen declining ridership growth, even with additional hour investments over the past several years. In the past year, ridership has begun to slowly decline rather than grow, which is a result of several factors that will be discussed further in this section. In general, ridership on ST Express buses is lower in the December holiday season and highest during the summer months. This section's analysis will look at ridership by time of day, corridor and route level. Stop-level ridership can be found in the facility maps later in this section as well as in the Appendix.

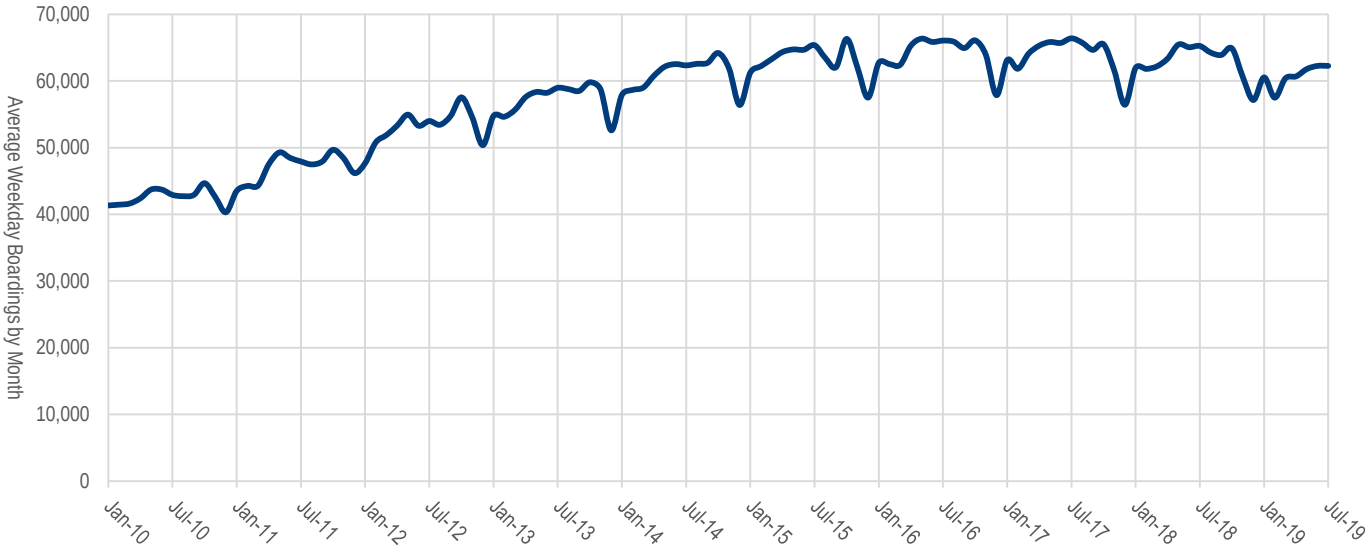


Figure 8: Average Weekday ST Express Ridership, 2010 - 2019



Ridership by Corridor

The highest ridership corridors in the Sound Transit District connect Seattle to East King County. The SR 520 corridor carries over 14,000 passengers a day, while the I-90 corridor has lost ridership over the past year, carrying only 11,000 daily passengers. These buses have service during peak periods of every 5 to 7 minutes and provide a fast connection across Lake Washington. I-5 North and I-5 South (Pierce and King) together form the next strongest corridors in the Sound Transit system. I-405 corridors from Bellevue to Snohomish and South King County are commute oriented, with peak service having higher ridership compared to the all-day, all week service.

Sounder connectors provide connections between park-and-rides in Pierce County to Sumner and Puyallup stations. The park-and-rides are approaching capacity, resulting in limited ridership growth once those spots are filled.

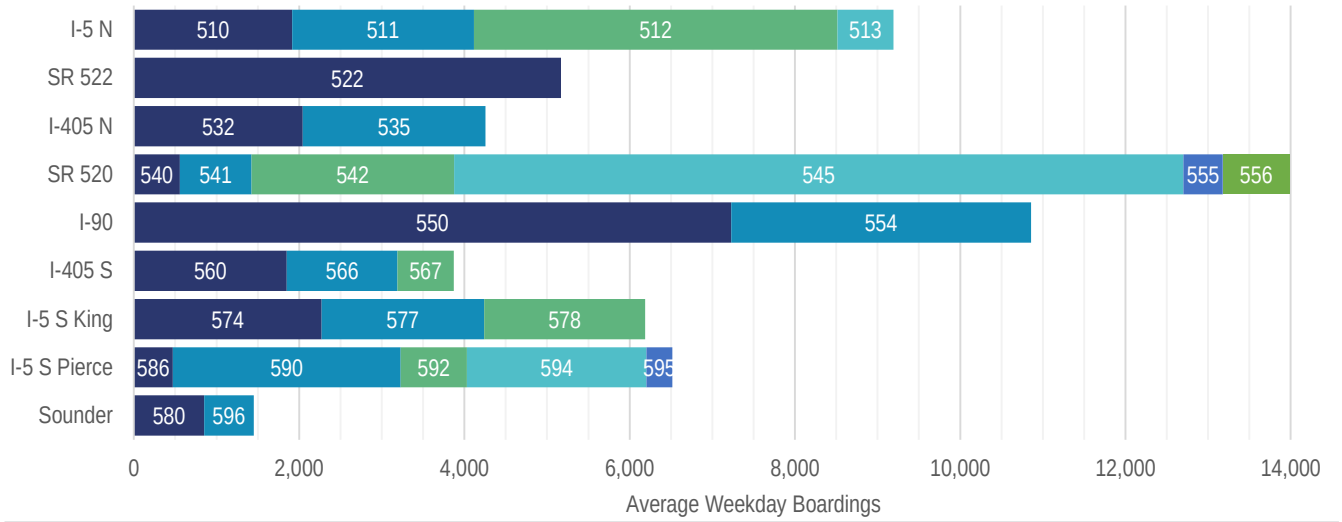
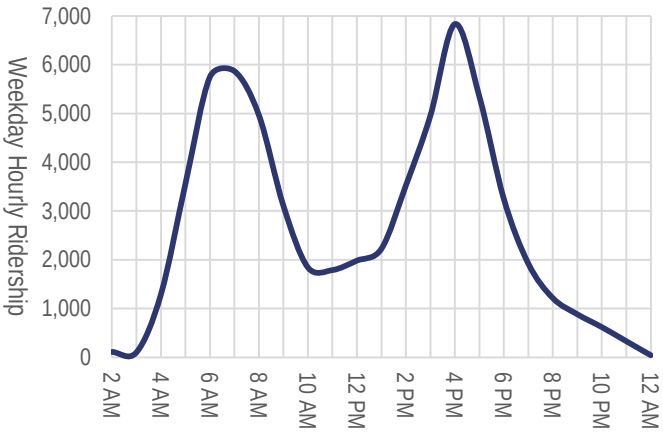


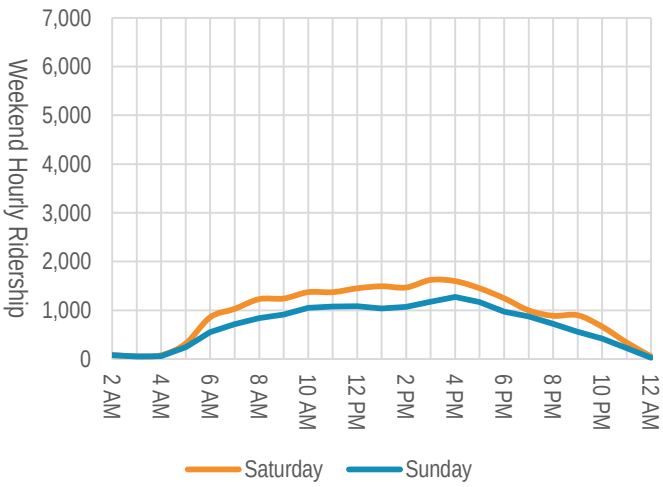
Figure 9: ST Express Ridership by Corridor, Spring 2019

Ridership by time of day

Weekday ridership has two distinct peaks corresponding with commute periods. PM peak ridership is higher and less spread out compared to the morning peak, a reflection of different morning departure times based on distance traveled but consistent departure times from job centers.

Weekend ridership is steady during the day, with Saturday ridership higher than Sunday ridership. On both weekdays and weekends, ridership has a slight peak at 4pm, which is likely the result of events ending around that time.





RECENT RIDERSHIP CHANGES

With the exception of two corridors, ridership at the route level had very small changes from year to year.

The biggest change for any individual route was the result of construction impacts that resulted in significant changes. Route 550 experienced the largest change at a decrease of about 2,900 boardings. Several reasons can be attributed to this ridership decline, which can be found on the opposite page. Additionally, Route 554 has also seen a drop in ridership for similar reasons due to stop changes in Downtown Seattle and on I-90.

Ridership on SR 520 has stabilized after major park-and-ride closures on Route 545 resulted in ridership shifts. However, spring 2019 service changes including Route 555 and the Montlake Freeway Station will result in more ridership shifting..

Ridership declines continue on Routes 592 and 594 due to congestion at the Pierce-King county boundary, resulting in lower on-time performance and less reliable service. Sounder connectors continue to grow as a result of the new Sounder South round trips.

I-90 RIDERSHIP CHANGES

Route 550

There have been significant changes to the travel patterns on Sound Transit Routes 550 and 554 which link Downtown Seattle to communities in East King County.

Ridership began a steady decline in June 2017 when the South Bellevue park and ride closed. In 2019 of this year, the rate of decline accelerated with the relocation of Route 550 from the DSTT to surface streets.

Stop level ridership data from spring 2019 indicates that approximately 1,100 riders were using the 550 just in the DSTT. Those riders have most likely shifted to Link or other bus routes in the downtown Seattle core. This is an unsurprising change in ridership as our customers settle in to the new way our system is designed to operate in Downtown. While not surprising, we were uncertain of the magnitude of shifts in ridership.

ORCA data indicates that 160 riders have moved to King County Metro route 271, which connects Bellevue and the UW Link station via highway 520.

About 300 riders stopped using the Route 550 due to

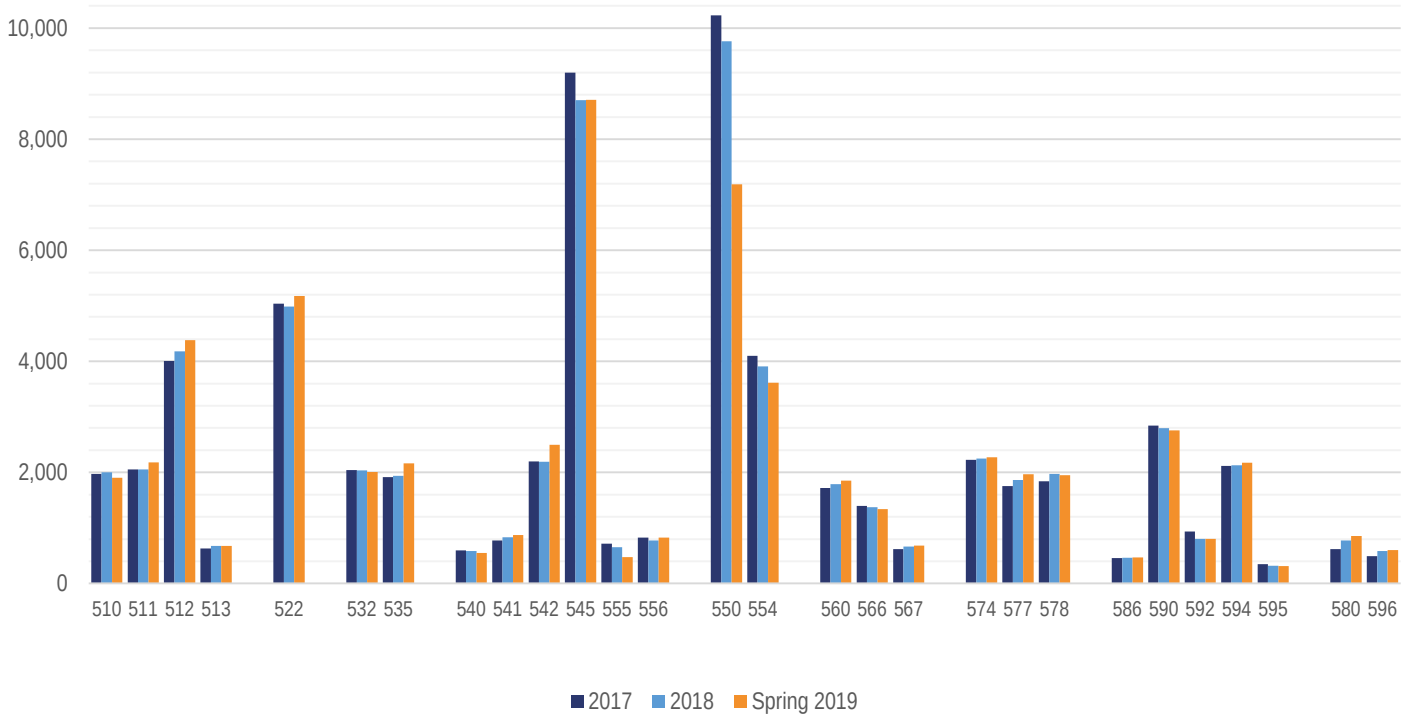


Figure 10: ST Express Ridership by Route, 2017 - 2019



1. June 2017: South Bellevue P&R Closes
 ▼ **900** boardings
2. June 2018: Convention Place Closes
 ▼ **300** boardings
3. Sept 2018: Rainier Freeway Station Closes
 ▼ **300** boardings
4. March 2019: Buses Move to Surface Streets
 ▼**2,300** boardings

Figure 11: Route 550 Historical Ridership and Milestones

another 1,330 have stopped using the service because of changes in bus stop locations (per stop level ridership data before/after Rainier Freeway Station and DSTT closure). About 750 riders changed travel patterns who in the past boarded at Convention Place and Westlake Stations. Another 280 passengers used to board at the other three DSTT stations, and 300 boardings were lost at the Rainier Freeway Station.

Route 554

Most of the ridership decline on Route 554 has been in the Pioneer Square and Rainier Freeway Station vicinity. Since the change in pathways, the stops close to Pioneer Square and International District have collectively lost 220 daily boardings, or 26 percent of the ridership. Another 140 boardings were lost at Rainier Freeway Station. The September 2019 service change restored a stop for passengers headed toward Issaquah in the International District at S Jackson St and Maynard Ave. which may restore some ridership to this route.

Where did Route 550 riders go?

▼ 1,120	▼ 160	▼ 310	▼ 1,330
Trips within Downtown Seattle Shifted to Link or other bus routes	Link Connection Shifted to KCM Route 271 + Link transfer at UW	Longer Travel Time Additional travel time due to new routing	Rider Access Changed stop locations, different walk to stop, waiting environment

Where did Route 554 riders go?

▼ 150	▼ 100	▼ 360
Longer Travel Time Additional travel time due to new routing	Shift to Other Routes Riders may have shifted to faster routes to common destinations	Rider Access Changed stop locations, different walk to stop, waiting environment

ST Express *Performance Monitoring: Productivity*

Productivity metrics help to identify inefficient segments that will be prioritized for restructures or routes that carry significant budget impacts.

WHAT CHANGED IN 2018/19?

Boardings

The past 18 months presented additional challenges to accessing Sound Transit services which ultimately had an impact on ridership and performance metrics. Closures of two freeway stations at Rainier Ave S and Montlake Blvd impacted ridership on both Routes 550/554 and 545. A lack of travel time competitiveness, especially during the PM peak period, has resulted in continued degradation of the services operating to Pierce County on Routes 590 and 592.

Lastly, Sounder connectors are continuing their trend of productivity, as passengers utilize park-and-ride availability at remote lots to fill more reliable Sounder South trains.

Revenue Hours and Subsidies

Revenue hours were allocated to respond to increased congestion and longer travel times with Route 550 coming out of the Downtown Seattle Transit Tunnel. Note that subsidies for Route 550 reflect cost sharing between Sound Transit and King County Metro for use of the tunnel.

Increased costs at from all partner agencies resulted in increased subsidies per boarding in most cases. This is most prevalent in routes operated by Pierce Transit, which combined with longer time spent operating between the route and their base in Lakewood,

RESPONDING TO PRODUCTIVITY ISSUES WITH 2020 CHANGES

Ridership changes on both the I-90 corridor as well as the SR-520 corridor are being actively monitored as ridership patterns change from impacts to the Rainier and Montlake Freeway Station closures. While full impacts to the Montlake Freeway Station closure are not observed in this document, Service Planning is actively monitoring ridership trends and will adjust service in 2020 to best respond to overcrowding and congestion in that corridor.

Additionally, several changes are aimed to improve performance of South King routes. Route 566 is streamlining reverse peak service to improve peak-direction reliability to alleviate overcrowding on select trips. Additionally, runtimes on Route 550 are being actively updated to reverse some of the ridership losses experienced when buses came out of the Downtown Seattle Transit Tunnel.

			Boardings per Revenue Hour		Boardings per Passenger Trip		Subsidy per Boarding		Passenger Miles per Platform Mile	
			2017	2018	2017	2018	2017	2018	2017	2018
1st Quartile	511	Lynnwood-Seattle	52.8	51.6	56.0	55.6	$1.77	$1.48	18.6	21.7
	550	Bellevue-Seattle	58.8	52.8	53.5	50.9	$3.23	$3.83	29.5	27.3
	510	Everett-Seattle	37.6	37.5	47.4	48.5	$2.10	$2.01	25.2	27.2
	545	Redmond-Seattle	36.5	33.5	47.4	44.7	$3.27	$4.20	23.7	22.4
	532	Everett-Bellevue	37.4	35.2	50.1	49.8	$1.75	$2.55	19.2	17.5
	596	Bonney Lake-Sumner	60.2	69.1	26.6	29.3	$2.80	$2.95	6.1	7.1
	522	Woodinville-Seattle	32.2	30.4	46.1	45.4	$4.20	$5.27	16.4	15.7
2nd Quartile	577	Federal Way-Seattle	37.5	39.9	36.4	38.6	$4.07	$4.87	13.6	14.4
	554	Issaquah-Seattle	33.7	32.2	39.8	38.6	$3.82	$4.74	18.2	17.9
	512	Everett-Seattle	28.1	29.1	38.2	39.8	$3.28	$3.68	17.0	16.5
	555	Northgate-Issaquah	30.3	27.2	42.4	38.4	$4.45	$6.12	14.8	13.2
	556	Issaquah-Northgate	28.7	26.7	43.7	40.9	$5.19	$6.54	13.7	12.1
	542	Redmond-U. District	30.1	30.1	29.9	29.7	$4.76	$5.41	14.6	14.7
	513	Evergreen/79th-Seattle	25.6	26.3	30.3	32.9	$5.70	$5.69	11.5	12.3
3rd Quartile	578	Puyallup-Seattle	19.0	20.2	33.7	35.9	$5.66	$6.85	14.5	14.6
	594	Lakewood-Seattle	16.8	16.8	31.9	32.2	$5.63	$7.48	19.1	18.6
	535	Lynnwood-Bellevue	24.3	24.1	28.6	29.0	$4.13	$4.58	10.4	10.8
	590	Tacoma-Seattle	21.6	19.7	34.1	33.4	$5.99	$8.55	15.2	14.8
	580	Lakewood-Puyallup	31.9	36.6	26.9	27.5	$4.15	$4.63	2.5	2.3
	574	Lakewood-SeaTac	18.9	18.9	28.3	28.3	$5.40	$7.13	12.9	12.6
	567	Kent-Overlake	27.1	28.0	33.7	33.2	$8.41	$10.75	7.2	6.7
4th Quartile	541	Overlake-U. District	22.5	24.1	17.7	19.2	$7.41	$7.77	9.5	10.3
	595	Gig Harbor-Seattle	17.1	14.8	35.3	32.2	$7.95	$12.96	15.3	12.5
	586	Tacoma-U. District	18.7	19.1	28.6	28.8	$9.73	$12.26	9.4	9.4
	560	Westwood Village - Bellevue	15.8	16.6	24.9	26.2	$7.85	$9.38	6.5	6.7
	540	Kirkland-U. District	21.9	22.0	16.6	16.2	$7.36	$8.62	7.7	7.6
	592	DuPont-Seattle	14.9	13.5	33.3	26.2	$10.07	$14.28	12.9	11.5
	566	Auburn-Overlake	16.4	16.2	26.0	25.5	$9.83	$12.53	5.4	5.1
Average			28.7	28.4	37.7	37.7	$4.45	$5.34	15.4	15.3

Table 11: ST Express Productivity Metrics by Route

ST Express Performance Monitoring: Service Quality

Table 12 lists key productivity metrics for each ST Express route. Service Planning uses these four metrics to evaluate where to make investments in service to address service quality issues.

SERVICE QUALITY SUMMARY

On-Time Performance

On-time performance (OTP) on ST Express measures the percentage of time when a bus leaves a fixed time point no more than 5 minutes late and not early. Fixed time points are generally those that occur before the bus enters the freeway and are where most boardings occur. Subsequent stops are generally considered estimated time points, where the bus may leave early, because people are more likely to alight there than board. **Please note that estimated time points are not counted towards on-time performance, and these numbers typically do not reflect highway traffic variability.** See the section on the next page for further discussion on on-time performance.

The I-405 North corridor had the best on-time performance, as it benefits from the High-Occupancy Toll lanes with reduced congestion. The I-5 South – King and Pierce corridors suffer from the worst on-time performance due to heavy congestion in both downtown Seattle and on I-5. While Sounder connectors often appear to leave late, this is sometimes because it waits for a late-arriving Sounder train to allow passengers to transfer.

Trips Operated as Scheduled

Community Transit operated routes fell below the standard for trips operated in early 2019. This is due to the February snowstorms, and Community Tranist met the targets when weather-related incidents were excluded.

All other routes had at least 99.6% of trips operated, meaning some were below the service standard of 99.8%. Some routes have decreased in this metric slightly over time, while others have increased, but no other significant patterns exist.

Customer Complaints

Customer complaints fell below target for three routes:

- Route 540 had elevated complaint rates due to the changeover from King County Metro to Community Transit and the subsequent temporary lack of real-time information for late arriving buses
- Route 555 continues to have complaints exceeding our standard due to the route truncation and on-time performance issues, but these are improving from prior years.
- Route 595 has high complaint rates due to low ridership skewing the comments about poor reliability.

Passenger Overcrowding

Overcrowded trips typically occur during peak periods between Seattle and East King (along SR 520) or Snohomish County (I-5 North). These routes have consistently high demand and overcrowding is exacerbated by reduced on-time performance. Route 550, which traditionally has experienced higher rates of overcrowding,

Sounder Connectors also have some reported overcrowding on their trips. These routes typically experience overcrowding when Sounder trips are significantly delayed for any reason and carry passengers from multiple trains.

Route		On Time Performance (OTP)			Trips Operated as Scheduled			Customer Complaints per 100,000 boardings			Passenger Overcrowding Rate		
		2017	2018	2019	2017	2018	2019	2017	2018	2019	2017	2018	2019
		85%	85%	85%	99.8%	99.8%	99.8%	15.0	15.0	15.0	0.0%	0.0%	0.0%
510	Everett-Seattle	87%	86%	88%	99.9%	99.8%	*96.1%*	11.3	13.9	6.5	0.5%	1.3%	0.1%
511	Lynnwood-Seattle	*84%*	86%	87%	99.9%	99.9%	*95.9%*	2.3	4.0	0.4	2.5%	1.7%	1.5%
512	Everett-Seattle	91%	91%	92%	99.9%	99.9%	100.0%	3.0	5.2	4.0	0.4%	1.4%	0.4%
513	Evergreen/79th-Seattle	*84%*	86%	89%	99.7%	99.8%	*95.9%*	6.8	9.3	7.2	0.2%	0.8%	0.0%
522	Woodinville-Seattle	85%	88%	87%	99.8%	99.8%	*99.7%*	6.4	6.5	4.7	3.8%	3.8%	0.3%
532	Everett-Bellevue	95%	94%	93%	99.9%	99.9%	*95.9%*	4.0	*17.2*	11.4	2.1%	2.8%	3.9%
535	Lynnwood-Bellevue	97%	98%	96%	100.0%	99.9%	*97.9%*	7.3	7.8	8.3	0.3%	1.1%	0.7%
540	Kirkland-U. District	*70%*	*74%*	*79%*	99.9%	99.8%	99.9%	10.5	11.4	*22.6*	0.1%	0.0%	0.0%
541	Overlake-U. District	*83%*	88%	86%	99.8%	99.9%	*99.7%*	8.6	6.1	7.7	0.2%	0.0%	0.0%
542	Redmond-U. District	86%	86%	85%	99.9%	99.8%	*99.7%*	5.2	6.4	6.3	0.2%	0.1%	0.0%
545	Redmond-Seattle	85%	89%	88%	*99.7%*	99.8%	*99.7%*	3.8	4.4	3.7	4.7%	3.0%	0.2%
550	Bellevue-Seattle	89%	89%	89%	*99.7%*	99.8%	99.8%	1.6	3.7	5.1	5.4%	4.2%	0.1%
554	Issaquah-Seattle	83%	89%	91%	*99.6%*	*99.7%*	*99.7%*	6.4	9.4	6.0	1.6%	1.1%	0.1%
555	Northgate-Issaquah	*75%*	*77%*	86%	100.0%	100.0%	100.0%	*23.5*	*60.7*	*28.3*	0.1%	0.0%	0.0%
556	Issaquah-Northgate	*74%*	*76%*	*75%*	99.9%	*99.6%*	*99.7%*	12.4	12.2	5.9	0.2%	0.0%	0.0%
560	Westwood Village-Bellevue	*81%*	*83%*	*83%*	99.9%	99.8%	*99.7%*	7.3	9.9	3.6	0.4%	0.5%	0.2%
566	Auburn-Overlake	*77%*	*77%*	*78%*	99.8%	*99.7%*	*99.6%*	8.7	8.6	3.6	0.1%	0.2%	0.1%
567	Kent-Overlake	87%	*84%*	85%	99.9%	*99.7%*	99.9%	12.6	*23.7*	10.1	0.5%	0.4%	0.0%
574	Lakewood-SeaTac	*70%*	*75%*	*78%*	99.8%	*99.7%*	99.8%	7.2	7.1	4.3	0.0%	0.0%	0.0%
577	Federal Way-Seattle	*74%*	*81%*	90%	99.9%	99.8%	99.9%	5.8	9.8	4.4	1.1%	0.7%	0.7%
578	Puyallup-Seattle	*73%*	*73%*	*69%*	99.7%	*99.6%*	*99.7%*	7.8	7.5	3.6	0.7%	1.2%	1.1%
580	Lakewood-Puyallup	*72%*	*79%*	85%	100.0%	99.9%	100.0%	7.0	2.5	1.1	6.0%	4.4%	1.9%
586	Tacoma-U. District	*79%*	*78%*	*77%*	100.0%	99.9%	99.9%	*18.9*	10.2	10.4	0.0%	0.0%	0.0%
590	Tacoma-Seattle	*73%*	*79%*	*80%*	*99.6%*	*99.7%*	*99.7%*	6.9	9.3	5.9	1.2%	0.1%	0.2%
592	DuPont-Seattle	*70%*	*74%*	*81%*	99.8%	99.8%	99.8%	14.7	*17.1*	6.0	0.0%	0.0%	0.0%
594	Lakewood-Seattle	*78%*	*78%*	*80%*	*99.7%*	*99.7%*	*99.7%*	10.2	10.5	7.1	0.4%	0.4%	0.4%
595	Gig Harbor-Seattle	*74%*	*80%*	87%	99.8%	99.8%	99.9%	*32.4*	*15.9*	*18.6*	0.0%	0.0%	0.3%
596	Bonney Lake-Sumner	*82%*	*84%*	88%	100.0%	99.9%	100.0%	*20.0*	*15.4*	3.2	0.1%	0.4%	0.1%
Average		81%	83%	85%	99.8%	99.8%	99.2%	9.7	11.6	7.0	1.2%	1.1%	0.4%

Table 12: ST Express Service Quality Metrics by Route

OVERCROWDING

The introduction of double decker buses on the I-5 North corridor has resulted in a signfiicant reduction of overcrowding on vehicles. On average all trips on this corridor have seated capacity as a result. Additionally, the corridor with traditionally the most overcrowding, the I-90 corridor, now generally has seats on every trip, both during peak and off-peak periods as a result of the closure of the Rainier Freeway Station and the conversion of the Downtown Seattle Transit Tunnel to rail only.

There has been an uptick in overcrowding on the SR522 trips, with over half of trips during peak periods experiencing standing loads, as well as on the SR 520 corridor, where one trip has loads that exceed the load standard. Sound Transit will evaluate ways to mitigate overcrowding such as introducing one additional trip on the SR 522 corridor in September 2019. Additional data is needed to best address overcrowding on the SR-520 corridor, as ridership patterns will likely shift as a result of the Montlake Freeway Station closure in June 2019.

Sounder Connectors are very well utilized, with only a couple trips having large numbers of seats available to use.

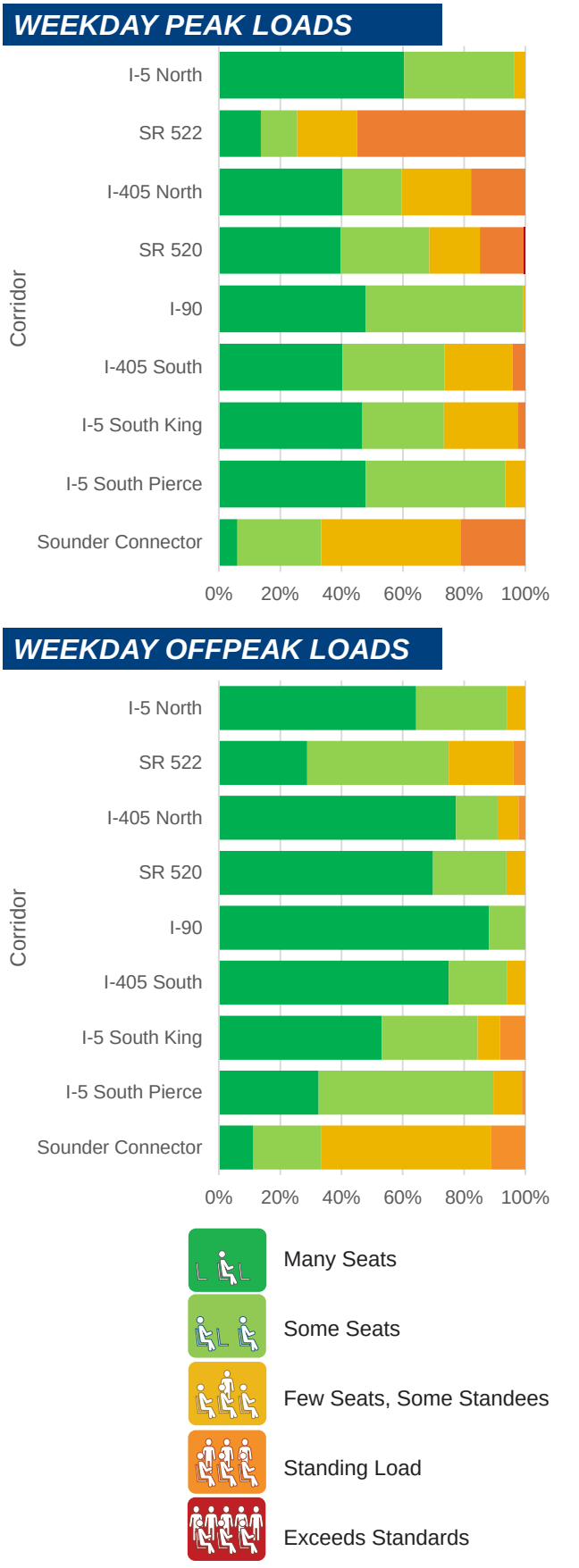


Figure 12: ST Express Weekday Loads by Corridor and Time of Day

TRIPS OPERATED AS SCHEDULED

There are a couple common reasons why trips would not operate as scheduled:

- **Mechanical Breakdowns -** Vehicles that break down on the road may result in a missed trip if a replacement coach cannot be brought into service in time for the next trip.
- **Operator Shortage -** Operator shortages are occurring nationwide, including here in the Puget Sound region. On occassion, trips may end up being missed due to a lack of operator.
- **Earlier Late Trips -** Operators who are significantly delayed due to congestion from traffic accidents, weather or significant sporting event may end up cancelling a trip or repositioning their bus to get back on schedule.

In general, ST Express most commonly has issues with missed trips as a result of earlier late trips.

Service Delivery

Service delivery has the goal of delivering trips as close as possible to how they are scheduled. While percentage of trips operated is a useful metric for reporting purposes, Sound Transit conducts further analysis to understand how customers actually experience the service. The graphs on the right show one example of ideal service with even headways, and then one example of service delivered not meeting customer expectations. Trips start off close to schedule, but as time goes on, several buses run bunched with other buses (three departures around 4:30pm), followed by large gaps (with zero buses between 5 and 6pm). On this day, 90 percent of the service operated during the afternoon commute, but from a customer perspective about 60 percent of the service was actually delivered as scheduled due to the large gaps. Four trips operated over 10 minutes after the last scheduled departure trip.

This issue is most prevalent when congestion is highly variable, such as along the I-5 between Northgate and Seattle when buses are unable to start their trip on-time due to congestion coming from the bus base, or along I-5 between Seattle and Pierce County when the second trip has delayed departures due to late arriving first trips. In the upcoming year Service Planning will evaluate how to minimize missed trips as a result of region-wide congestion.

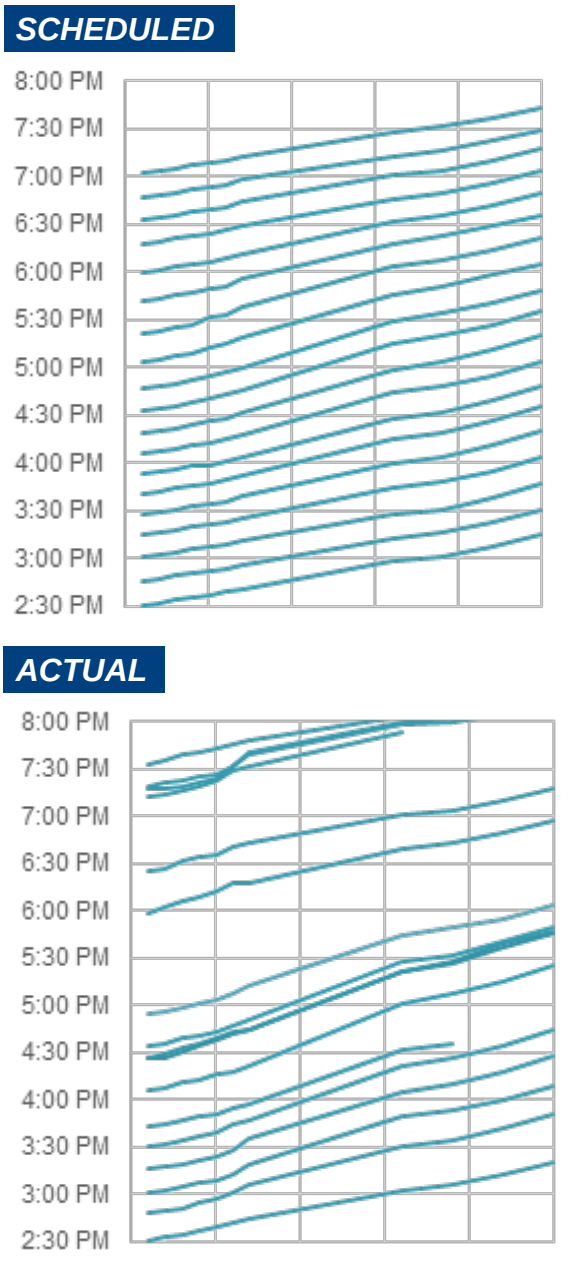


Figure 13: Example of Actual ST Express Service Levels Compared to Scheduled Service

Sounder Ridership & Performance

Sounder currently operates two lines, Sounder North between Seattle and Everett, and Sounder South between Seattle, Tacoma and Lakewood.

RIDERSHIP

Growth on Sounder South has been pronounced, with four round trips added over the past several years driving large ridership growth. September 2017 marked the most recent Sound Transit service expansion on Sounder South by implementing two new round trips and adding five cars to the mid-day train to make all Sounder South trips seven-cars long.

These service changes have resulted in significant ridership gains over the past couple years, averaging over 16,000 boardings on an average weekday. Ridership has doubled over the past 10 years, with more reliable service compared to I-5 driving much of the ridership gain.

Sounder North line ridership has grown at a slower rate over the past 10 years compared to Sounder South, and more recently has declined from recent highs to stabilize at 1,500 daily boardings (Figure 15). Major dips in average weekday ridership are due to mudslide activity which shuts down tracks for a minimum of 48 hours after the incident.



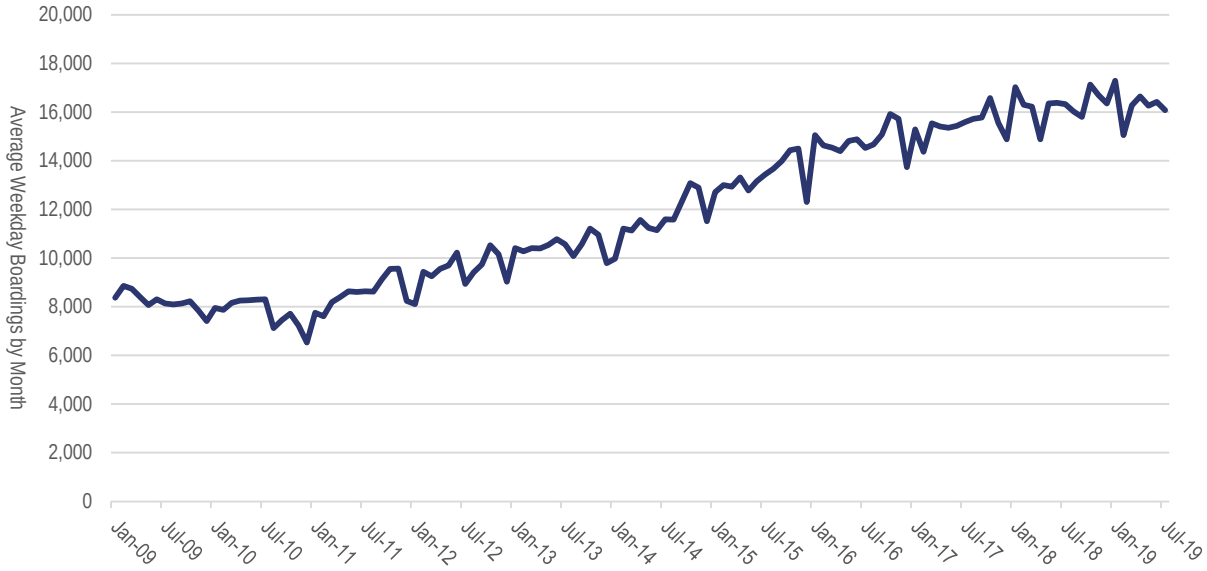


Figure 14: Average Weekday Ridership Sounder South, 2010-2019

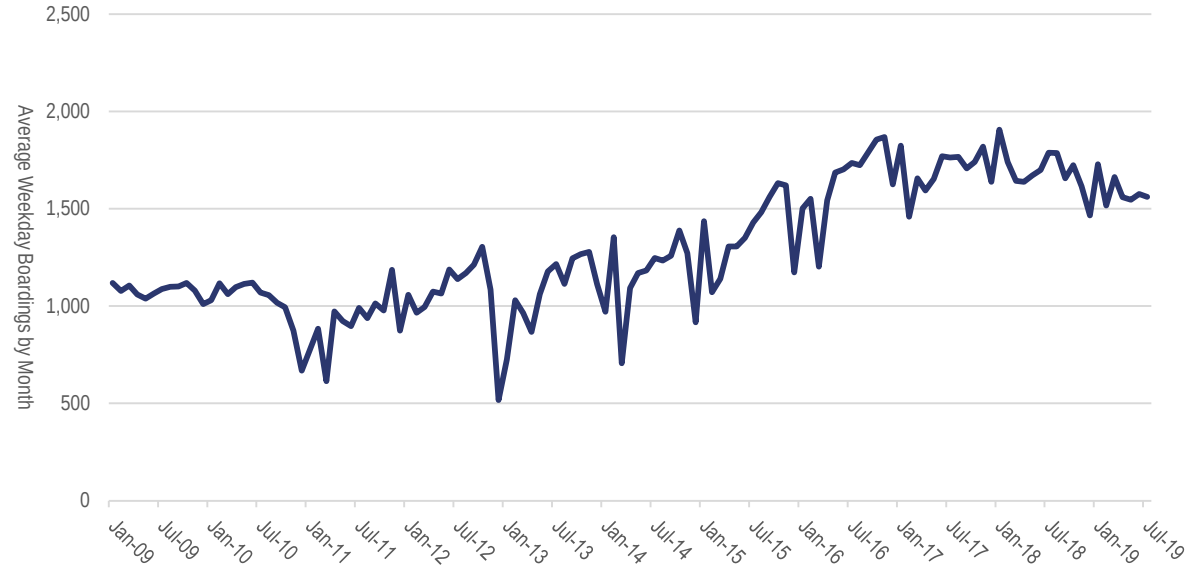


Figure 15: Average Weekday Ridership Sounder North, 2010-2019

ON-TIME PERFORMANCE

Sounder on-time performance has held steady over the past year, averaging about 95% of trips being on-time. There were no mudslides over the past 12 months, which has helped in terms of reliablity.

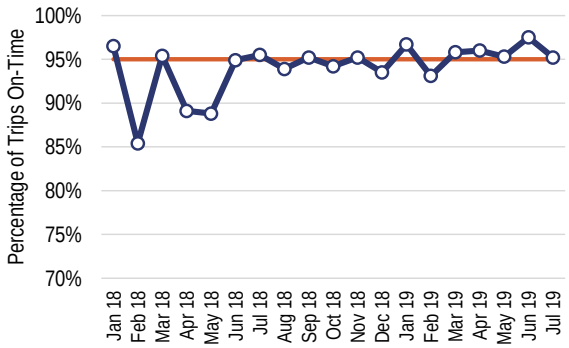


Figure 16: Sounder On-time Performance 2018 - 2019

Reliability Impacts

Delays on Sounder trains can be caused by a variety of reasons. The most common reasons that Sounder may experience delays include:

- Freight interference from BNSF trains
- Construction impacts from trackwork along the alignment
- Emergency response on trains or along the track
- Mechanical breakdowns
- Weather (mudslide/flooding/wind)

In all, while the reliability chart above has shown that we have met our targets, from a customer perspective certain individuals may be more impacted than others. The calendar to the right shows the severity of incidents that occured along Sounder tracks in the second quarter of 2019. While most incidents were less than 30 minutes long, some incidents did cause delays of over an hour.

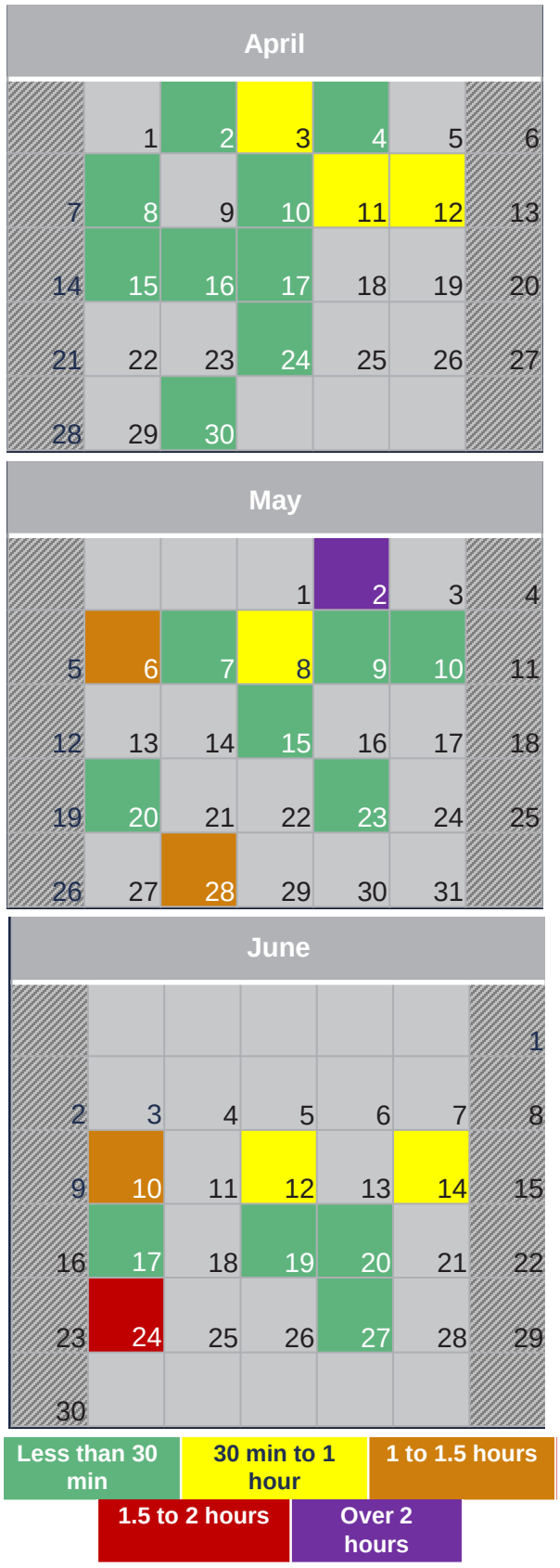


Figure 17: Sounder Incident Length by Date in Q2 2019

COMMENTS & COMPLAINTS

Most Sounder related comments relate to the operation of service or the equipment of the train. Many times, people will write in to detail their experiences on delayed trains and the associated communication of those delayed trains. Equipment related comments primarily stem from either the train being too hot or too cold based on seasonal weather adjustments not being reflected in the train cars temperature sensors or for issues with the mechanical system on the train.

Lastly, in the service related category, there are always requests for additional service. Sounder is limited in its ability to add additional service due to negotiations with BNSF for track time. Future work for Sounder include identifying ways to increase capacity on trains or where new service would be most warranted.

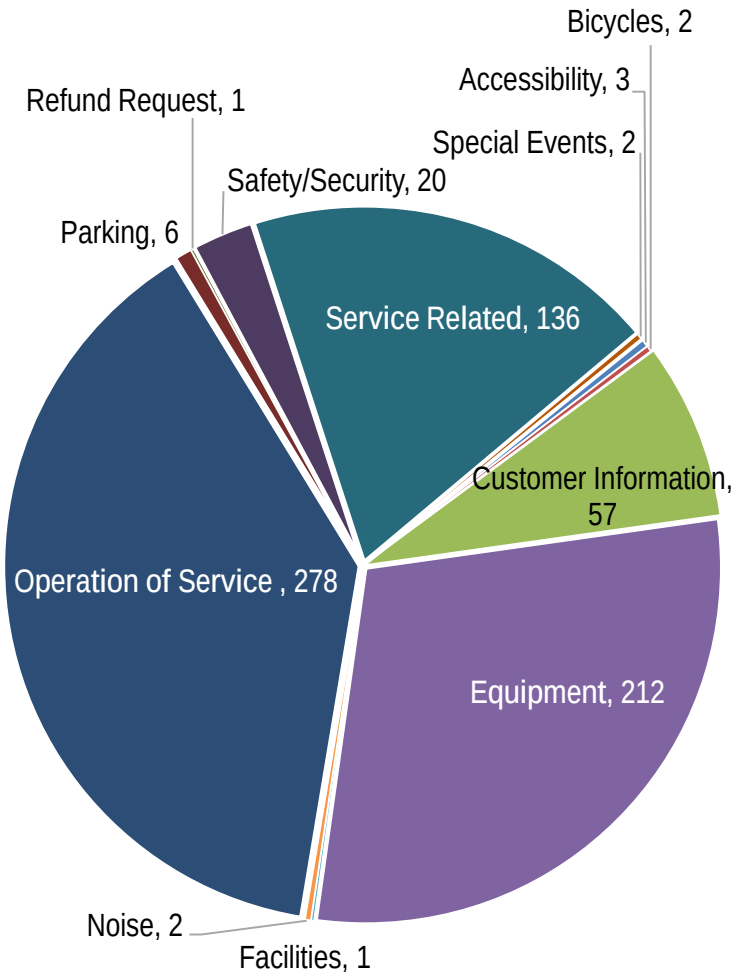


Figure 18: Sounder Customer Comments by Type, 2019

Link *Ridership & Performance*

RIDERSHIP

Ridership is up year-over-year in the first half of 2019, though ridership growth has been less than what was projected in last year's Service Plan. Most recently, changes to operations in the Downtown Seattle Transit Tunnel has resulted in ridership declines on former tunnel routes and some growth on Link the course of the year, ridership typically peaks in the summer and is lower during the winter months.

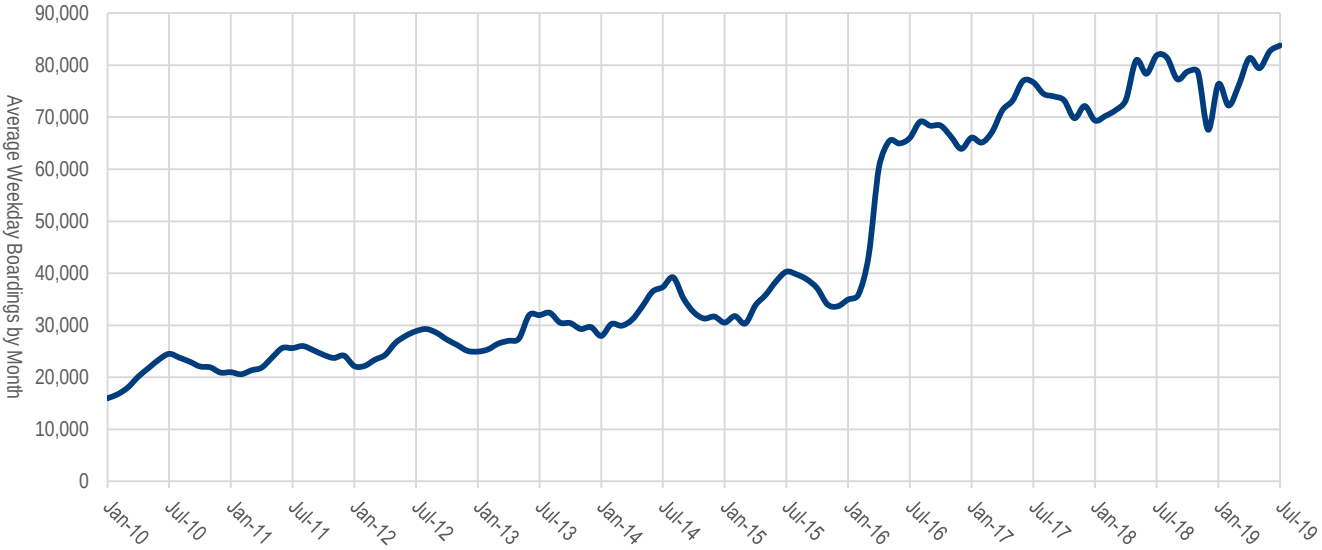


Figure 19: Average Weekday Link Ridership, 2010 - 2019



Weekday Ridership by Time of Day

Weekday ridership has stagnated in 2019 compared to 2018. While growth has been observed in the midday period now that buses are out of the tunnel, the gains have not been realized during peak periods. Peak period, peak direction trains are routinely at capacity, and ridership growth will likely plateau for trips during these time periods until additional train cars are available to be placed in service. The additional train sets will not enter service until the opening of the Northgate extension in 2021.

Additionally, ridership on weekday evenings has declined from 2018 to 2019 due to a Mariner promotion which increased ridership in the spring of 2018. This trend is evident across all day types, where ridership declines correspond to sporting event times.

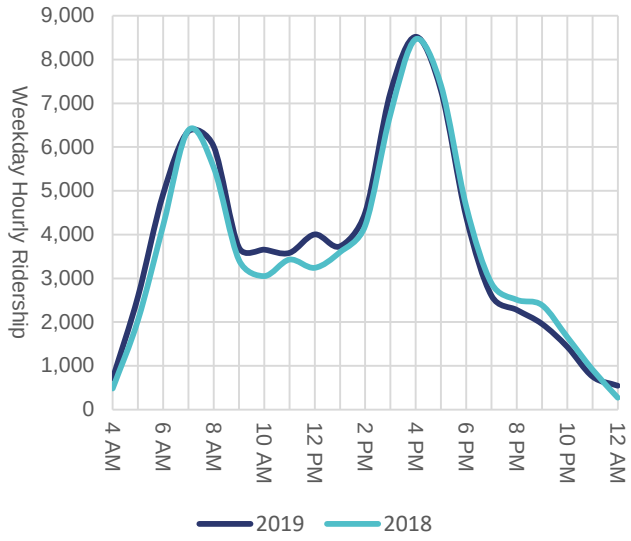


Figure 20: Weekday Link Ridership by Time of Day, Spring 2018 to Spring 2019

Saturday Ridership by Time of Day

Saturday ridership in the second quarter of 2019 averaged 52,400 boardings, a slight decrease from 2018. This loss is likely due to the 2018 Mariners ticket promotion likely drawing additional crowds onto Link which did not materialize in 2019. Ridership outside of sporting event times remained largely consistent with 2018 ridership.

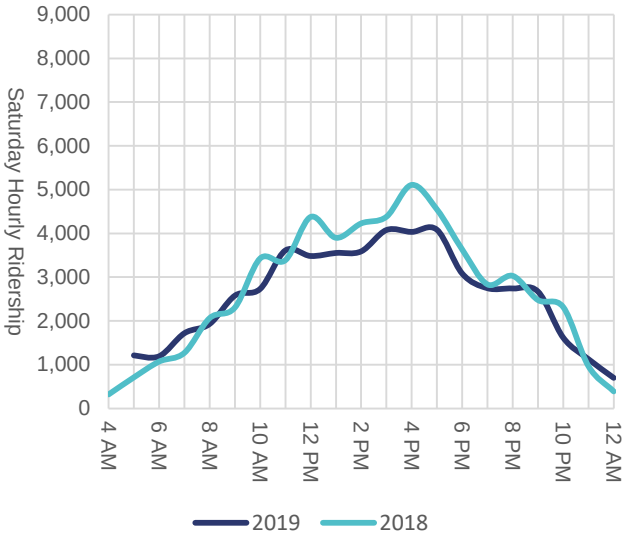


Figure 21: Saturday Link Ridership by Time of Day, Spring 2018 to Spring 2019

Sunday Ridership by Time of Day

Sunday ridership in the second quarter of 2019 averaged 43,300. As with Saturday ridership, Sunday ridership declined during the midday and early afternoon hours. These ridership losses likely correspond to sporting events being less popular compared to the prior year.

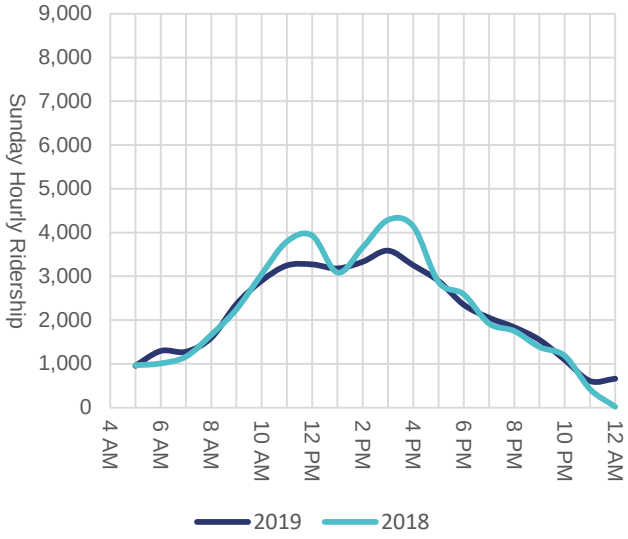


Figure 22: Sunday Link Ridership by Time of Day, Spring 2018 to Spring 2019

Link Boarding by Station

The year 2019 with the conversion of the Downtown Seattle Transit Tunnel to be rail-only resulted in moderate changes to station level ridership on Link. Downtown Seattle stations as well as the U Link segments experienced ridership growth, as well as the Rainier Valley segment.

Ridership declines year over year were most prevalent at Stadium Station, Tukwila / International Blvd and Angle Lake. Stadium Station ridership declines are likely associated with the Mariners ticket promotion

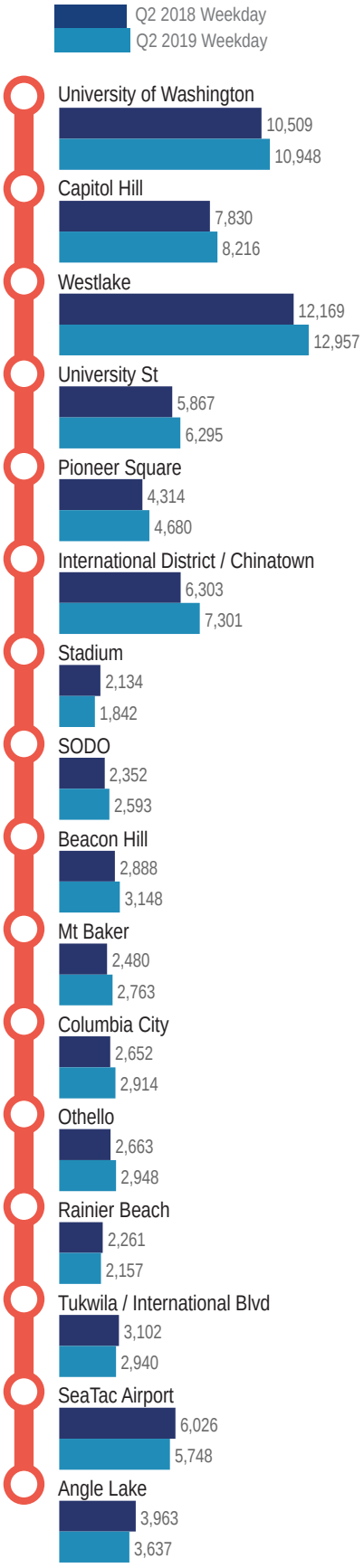


Figure 23: Link Ridership by Station, Spring 2018 to Spring 2019

PERFORMANCE MONITORING

With ridership gains on Link, all four productivity measurements improved in 2017 over 2016. Because no trips were added and because 2017 was the first full year with three new stations open, improvements to boardings per trip and per train-set revenue hour are a direct result of the higher ridership. The higher ridership also explains the higher average load experienced on Link.

Link Service Quality

On-time performance is measured in two ways: schedule adherence and headway performance. Because Link operates so frequently, Sound Transit reports on Link on-time performance as the scheduled headway (interval between trains) + 2 minutes rather than adherence to a posted time. This means during the morning and afternoon peaks when trains are every six minutes, if a train arrives within eight minutes of the prior train that is considered on-time.

With the conversion of the DSTT to rail only, Sound Transit has seen an uptick in reliability, as measured by the number of trips meeting the scheduled travel time through the tunnel. However other segments of Link, such as the Rainier Valley, still have times when the train has missed the window to reliably move through traffic signals without stopping.

Reliability Impacts

While Link is the most reliable of all modes other than Tacoma Link, and OTP has improved, its OTP still hovers around 90%. Much of the reliability issues can be traced to the Downtown Seattle Transit Tunnel, where Link shares right-of-way with buses, and the Rainier Valley, where Link runs at grade. Although Link has priority, it can still be delayed waiting to enter the tunnel or advance to the next station because buses in the tunnel take longer to load. Link reliability is expected to improve in March 2019 when the DSTT converts to rail-only and buses move to surface streets.

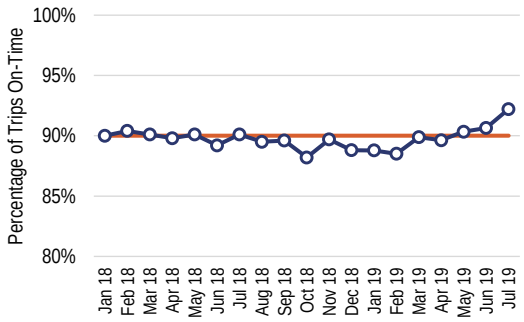


Figure 24: Link On-time Performance 2018-2019

Load Standards

Link loads continue to be high, with several trips sometimes exceeding the Link light rail loading standard of 2.0. However, only one trip consistently exceeds the loading standard three days a week, as defined in our service standards. This is currently a two-car train leaving University of Washington Station around 5 pm. This trip is heavily loaded due to the two car train configuration as well as passengers traveling through the Downtown Seattle Transit Tunnel to connect to the 5:20 pm Sounder South Line train. Sound Transit continues to monitor this trip and may make changes in 2019 to better accommodate passengers, especially after the conversion of the DSTT to a rail-only configuration.

Figure 25 and Figure 26 give a picture of Link loads by hour of day. Each dot represents an actual trip that occurred and the maximum load on each car during that trip. Train car loads are highest at peak hours, but the load of any given trip can vary substantially day by day.

NORTHBOUND AVERAGE TRAIN CAR TRIP MAX LOAD

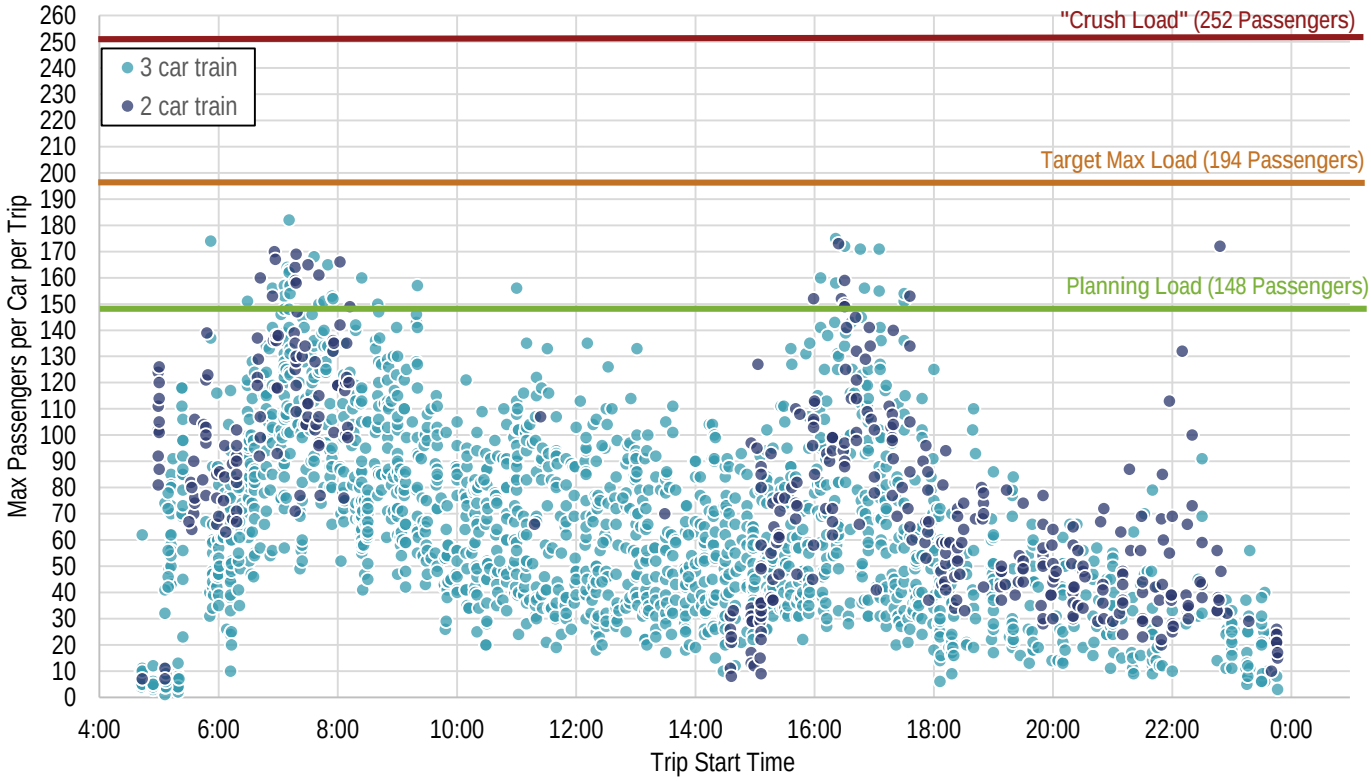


Figure 25: Maximum Car Loads on Individual Link Trips by Hour of Day, Northbound (June 2019)

SOUTHBOUND AVERAGE TRAIN CAR TRIP MAX LOAD

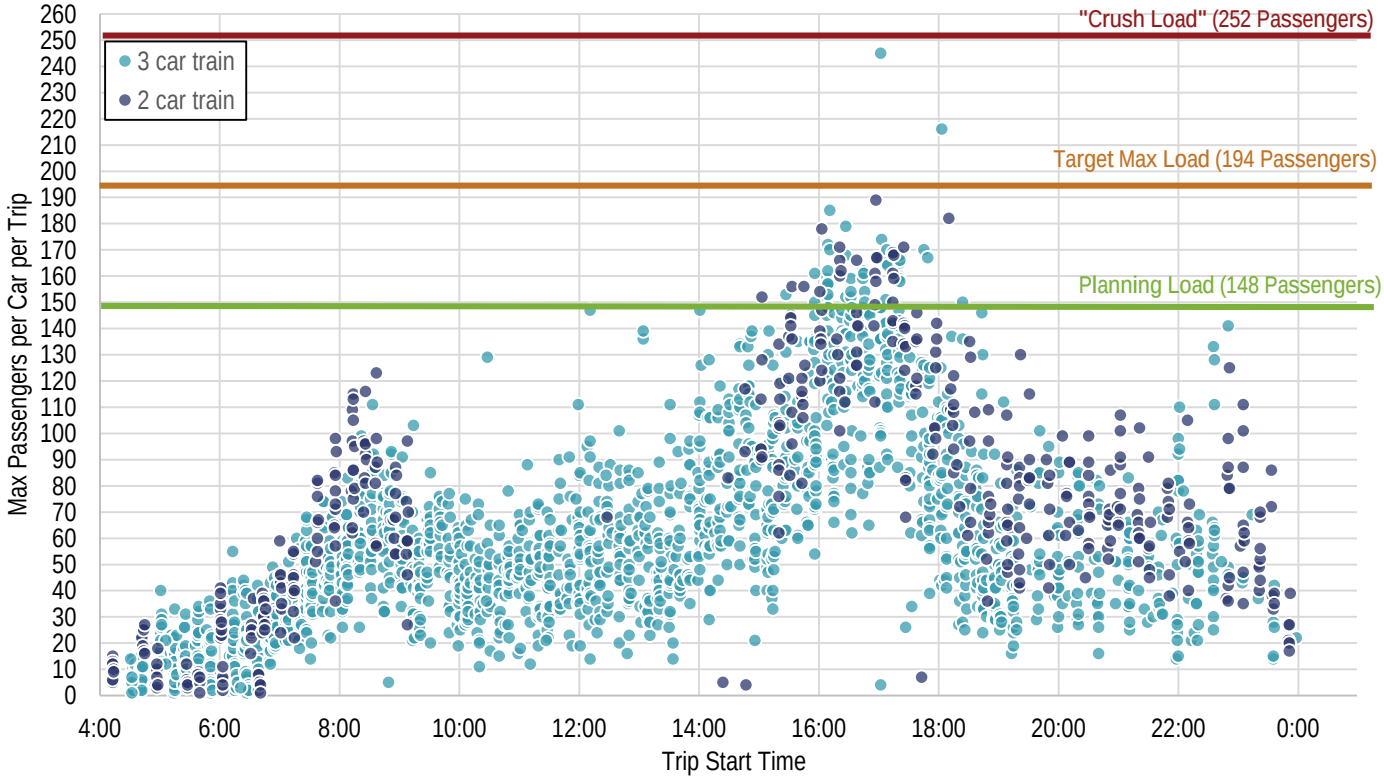


Figure 26: Maximum Car Loads on Individual Link Trips by Hour of Day, Southbound (June 2019)

Tacoma Link *Ridership & Performance*

RIDERSHIP

Tacoma Link is anchored at its southern terminus by the Tacoma Dome, a 23,000-seat event venue, and the 2,400-stall Tacoma Dome Station parking garage. There is no fee to park at Tacoma Dome Station during non-events, and no fares are charged on the route. As a result, ridership is heavily influenced by events at the Tacoma Dome in addition to class schedules at the UW Tacoma. Special events can draw an additional 1,000-2,000 boardings compared to a regular weekday. Overall, without special events, Tacoma Link has an average weekday ridership of around 3,000 passengers.

Factors in 2018 that resulted in an annual ridership drop of 9 percent included:

- Tacoma Dome undergoing a 6-month renovation projects in 2018 during which time no events occurred.
- The Tacoma Dome Station Parking garage saw the temporary closure of 200 parking stalls and extensive construction activities as part of a mid-life upgrading project.

By time of day, as seen below, ridership is fairly consistent across the day without a specific peaking phenomenon. Ridership is heavily correlated with class times at UW Tacoma, with certain trips experiencing much heavier ridership compared to adjacent trips. Saturday ridership is roughly half that of weekday ridership, and Sunday ridership, with service every 24 minutes and a smaller span of service, is half that of Saturday ridership.

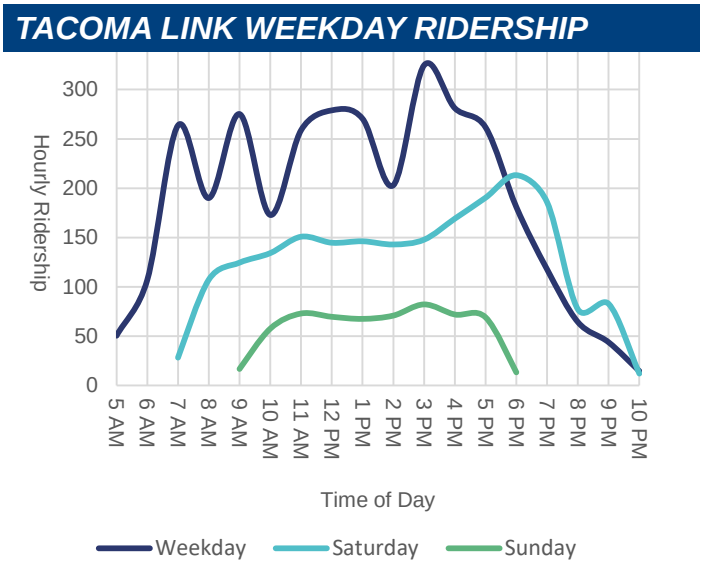


Figure 27: Tacoma Link Ridership by Hour, Spring 2019

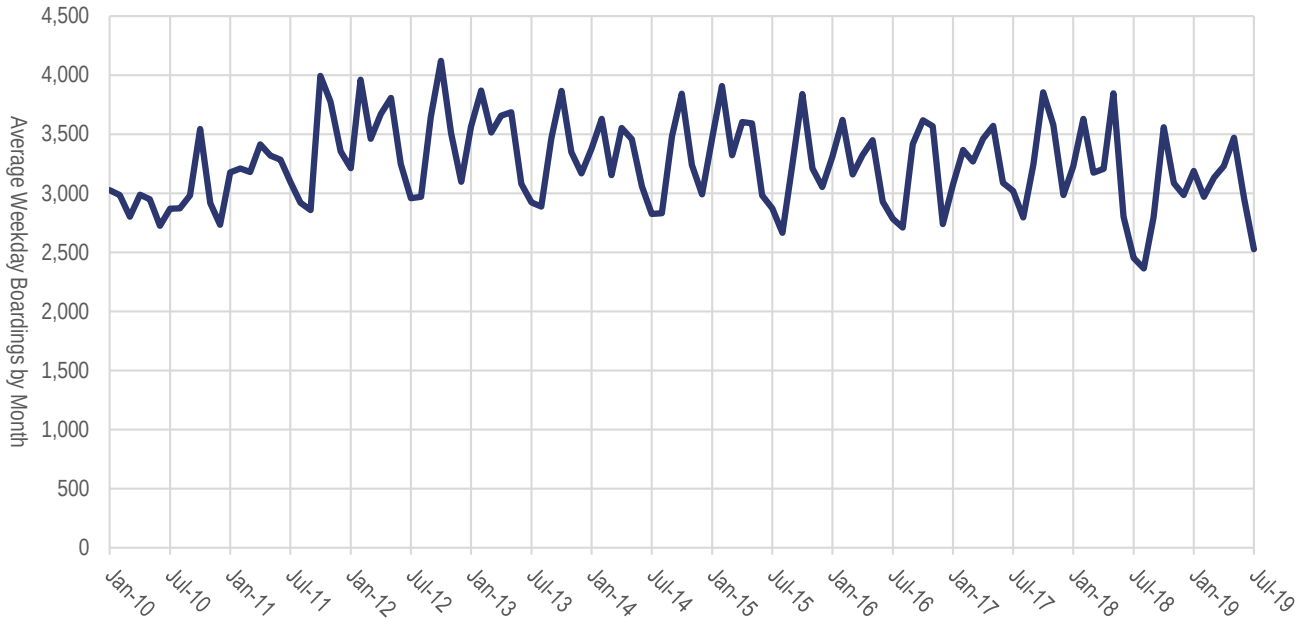


Figure 28: Average Weekday Tacoma Link Ridership, 2010-2019

PERFORMANCE MONITORING

This section describes the different metrics that are measured for Tacoma Link.

On-Time Performance and Trips Operated

Tacoma Link includes a single-track portion between Union Station and Tacoma Dome, which limits headways to every 10 minutes. Because a late incoming train could interfere with an outgoing train, any trip that is more than five minutes late would result in a trip cancellation. Therefore, the percentage of trips operated is equal to on-time performance.

Both OTP and percentage of trips operated consistently approach 100%, well above the goal of 98.5% of trips departing within three minutes of the schedule.

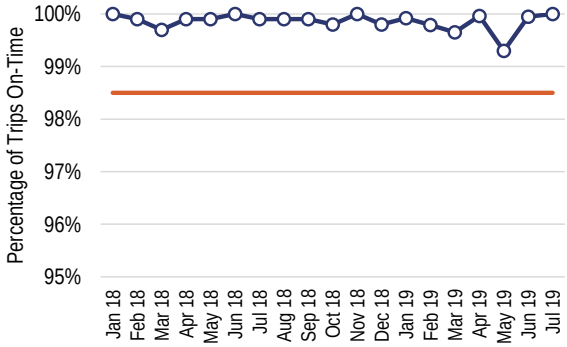


Figure 29: Tacoma Link On-time Performance 2018-2019

Trip Loads

Tacoma Link has specific trips that have higher chances of standees onboard, as shown on Figure to the right. These correspond to UW Tacoma schedules as students travel to and from the campus. One trip does exceed our service standard planning loads, and we will continue to monitor to see whether that trip warrants additional attention. Over the course of 2018, 1.6 percent of Tacoma Link trips exceeded the standard of 1.86 times the number of seats.

Customer Comments

No customer comments were received for Tacoma Link in 2018. High customer satisfaction may be partly because no fares are currently collected on Tacoma Link and service is generally reliable.

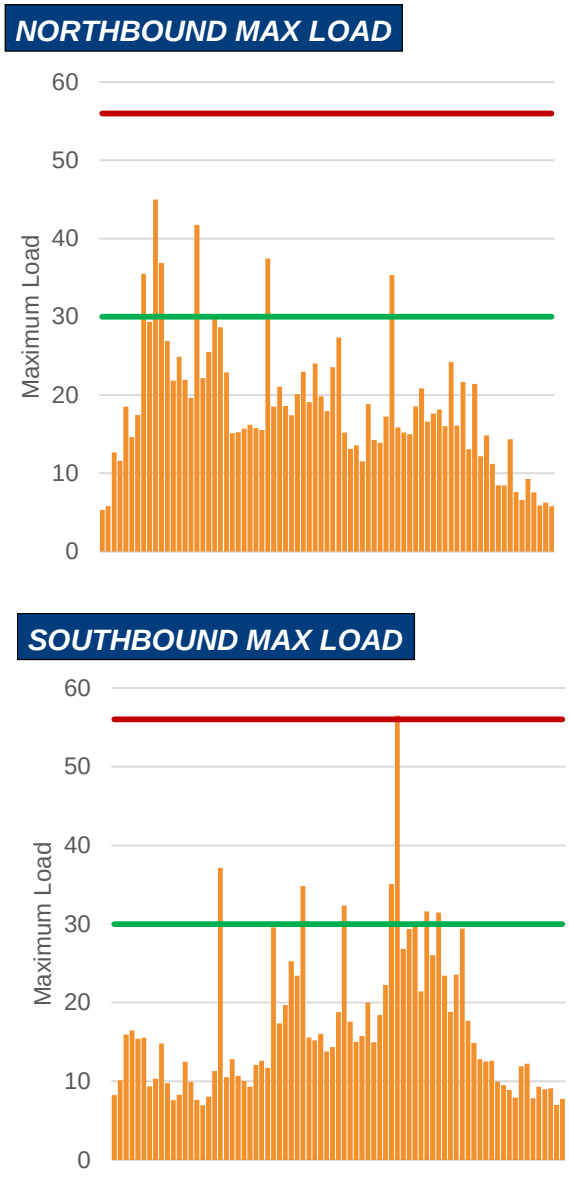


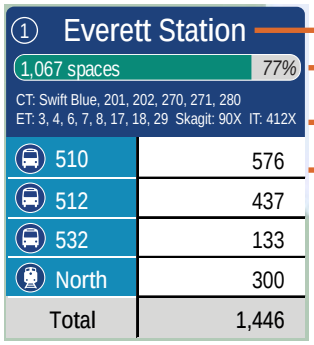
Figure 30: Tacoma Link Average Loads, Spring 2019

Ridership at Regional Facilities

The next several pages illustrate ridership at major regional facilities based on each subarea. Additional information for these facilities include connecting bus routes provided by our partners as well as parking utilization at facilities with parking. Additional information for stops and stations that are not listed in the next several pages can be found in the route profiles section towards the end of this document.

Map Legend

Color	Description
	Selected Subarea
	Other Subarea in Sound Transit District
	Outside Sound Transit District



Facility Name and map marker

The location of the facility being described and a marker to pinpoint the facility on the map

Parking Availability

The number of parking spaces available at this facility, as well as the percent utilization at each facility reported by the WSDOT Park-and-Ride Utilization Report (as of Q1 2019)

Connecting Bus Service

This is a list of bus routes provided by other transit agencies in the region

Station Ridership

Each route that Sound Transit operates is listed here, along with average weekday boardings in the 2nd quarter of 2019.

Boardings at Snohomish County Facilities

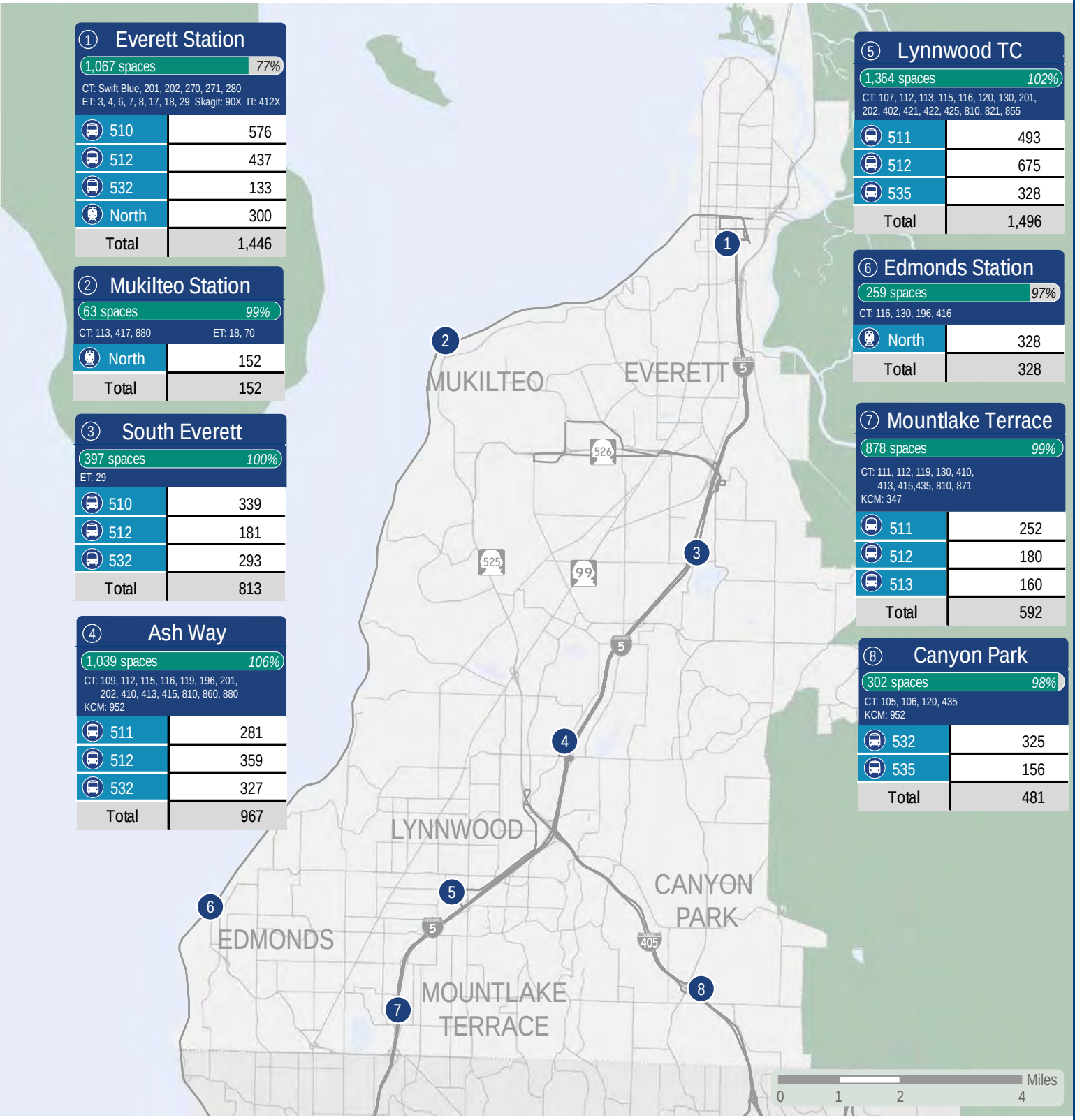
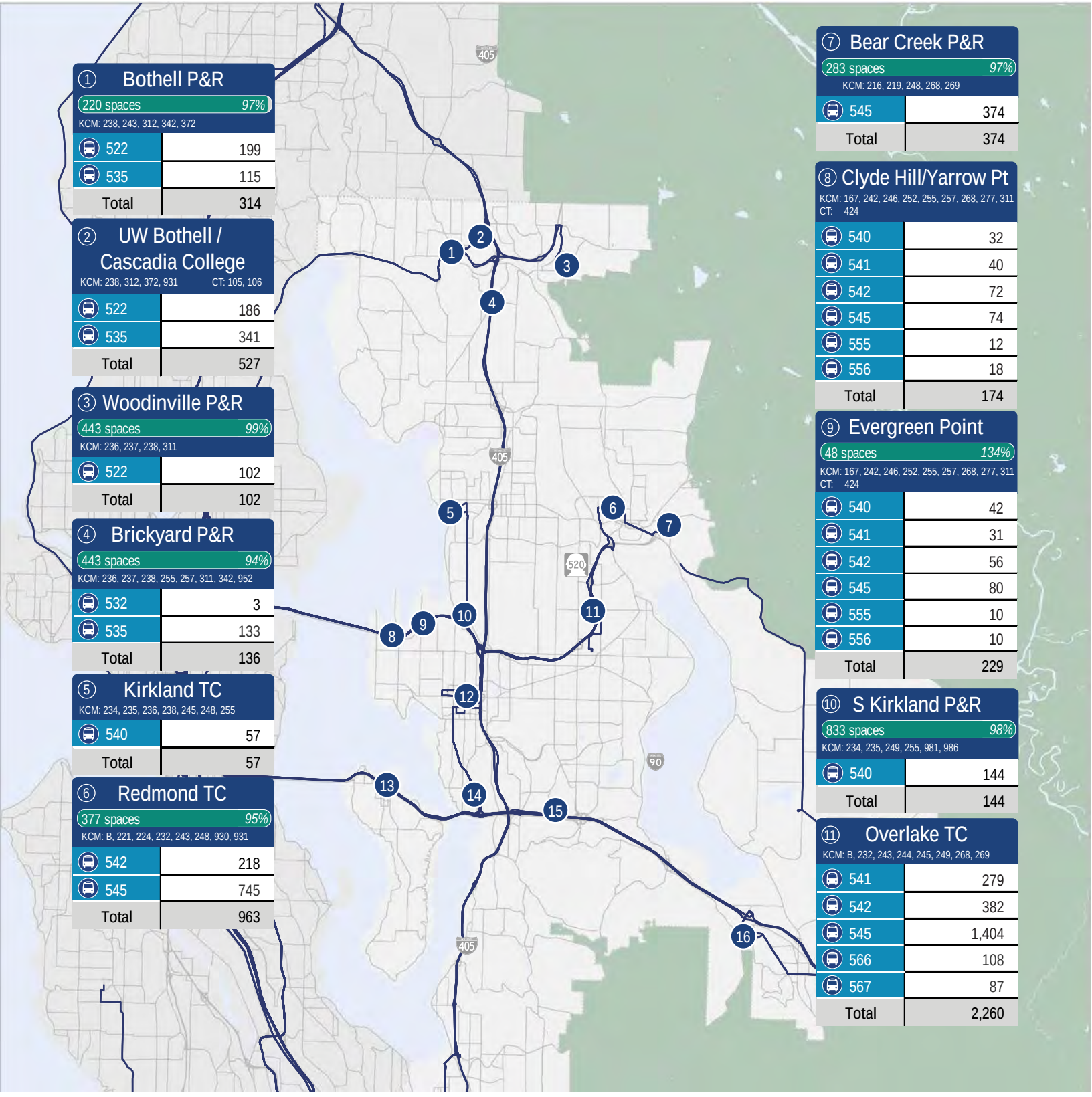


Figure 31: Map of Ridership at Select Snohomish County Facilities

Boardings at East King County Facilities



① Bothell P&R
220 spaces 97%
KCM: 238, 243, 312, 342, 372

522	199
535	115
Total	314

② UW Bothell / Cascadia College
KCM: 238, 312, 372, 931 CT: 105, 106

522	186
535	341
Total	527

③ Woodinville P&R
443 spaces 99%
KCM: 236, 237, 238, 311

522	102
Total	102

④ Brickyard P&R
443 spaces 94%
KCM: 236, 237, 238, 255, 257, 311, 342, 952

532	3
535	133
Total	136

⑤ Kirkland TC
KCM: 234, 235, 236, 238, 245, 248, 255

540	57
Total	57

⑥ Redmond TC
377 spaces 95%
KCM: B, 221, 224, 232, 243, 248, 930, 931

542	218
545	745
Total	963

⑦ Bear Creek P&R
283 spaces 97%
KCM: 216, 219, 248, 268, 269

545	374
Total	374

⑧ Clyde Hill/Yarrow Pt
KCM: 167, 242, 246, 252, 255, 257, 268, 277, 311
CT: 424

540	32
541	40
542	72
545	74
555	12
556	18
Total	174

⑨ Evergreen Point
48 spaces 134%
KCM: 167, 242, 246, 252, 255, 257, 268, 277, 311
CT: 424

540	42
541	31
542	56
545	80
555	10
556	10
Total	229

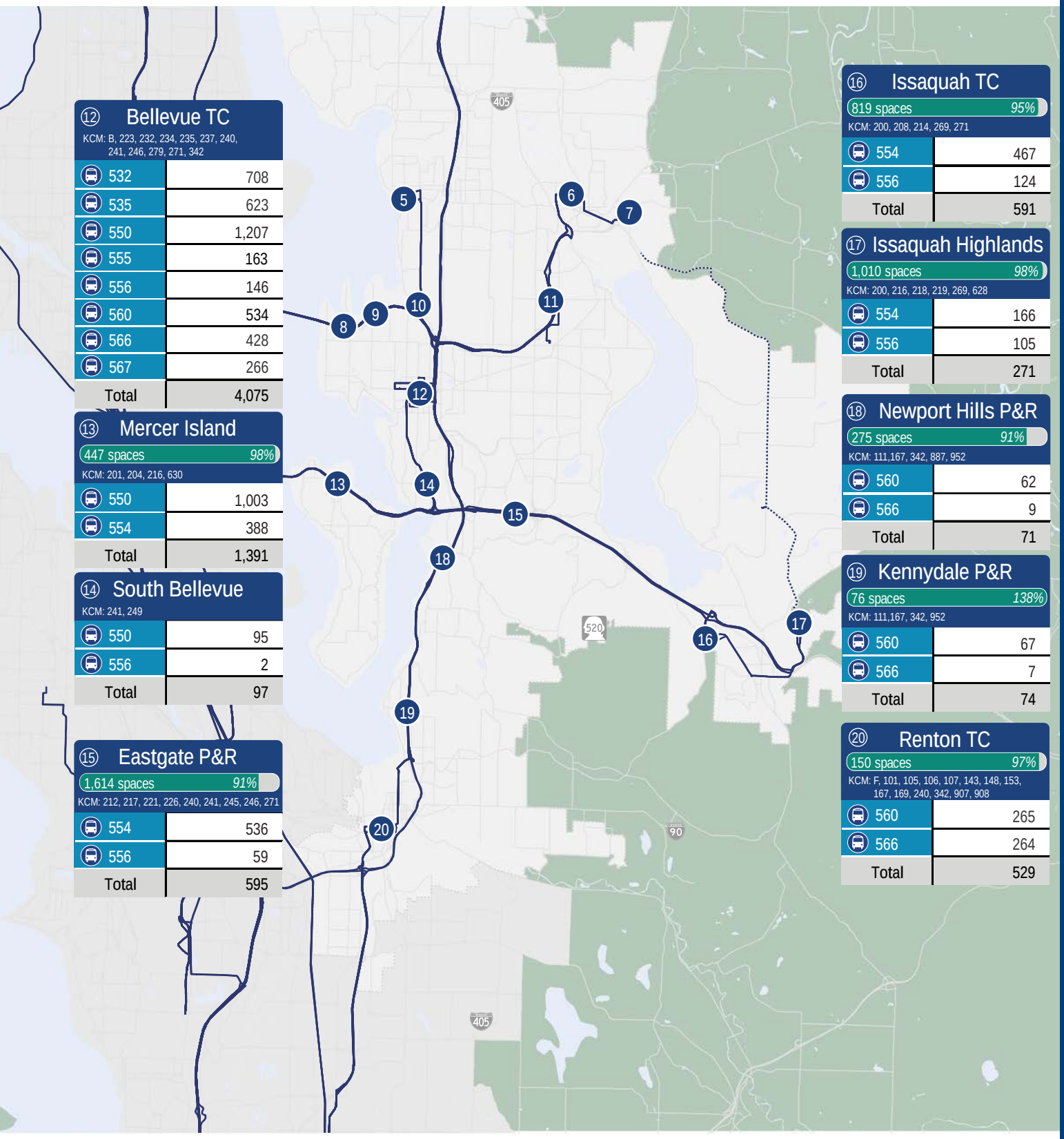
⑩ S Kirkland P&R
833 spaces 98%
KCM: 234, 235, 249, 255, 981, 986

540	144
Total	144

⑪ Overlake TC
KCM: B, 232, 243, 244, 245, 249, 268, 269

541	279
542	382
545	1,404
566	108
567	87
Total	2,260

Figure 32: Map of Ridership at Select East King County Facilities



⑫ Bellevue TC

KCM: B, 223, 232, 234, 235, 237, 240, 241, 246, 279, 271, 342

532	708
535	623
550	1,207
555	163
556	146
560	534
566	428
567	266
Total	4,075

⑬ Mercer Island

447 spaces 98%

KCM: 201, 204, 216, 630

550	1,003
554	388
Total	1,391

⑭ South Bellevue

KCM: 241, 249

550	95
556	2
Total	97

⑮ Eastgate P&R

1,614 spaces 91%

KCM: 212, 217, 221, 226, 240, 241, 245, 246, 271

554	536
556	59
Total	595

⑯ Issaquah TC

819 spaces 95%

KCM: 200, 208, 214, 269, 271

554	467
556	124
Total	591

⑰ Issaquah Highlands

1,010 spaces 98%

KCM: 200, 216, 218, 219, 269, 628

554	166
556	105
Total	271

⑱ Newport Hills P&R

275 spaces 91%

KCM: 111,167, 342, 887, 952

560	62
566	9
Total	71

⑲ Kennydale P&R

76 spaces 138%

KCM: 111,167, 342, 952

560	67
566	7
Total	74

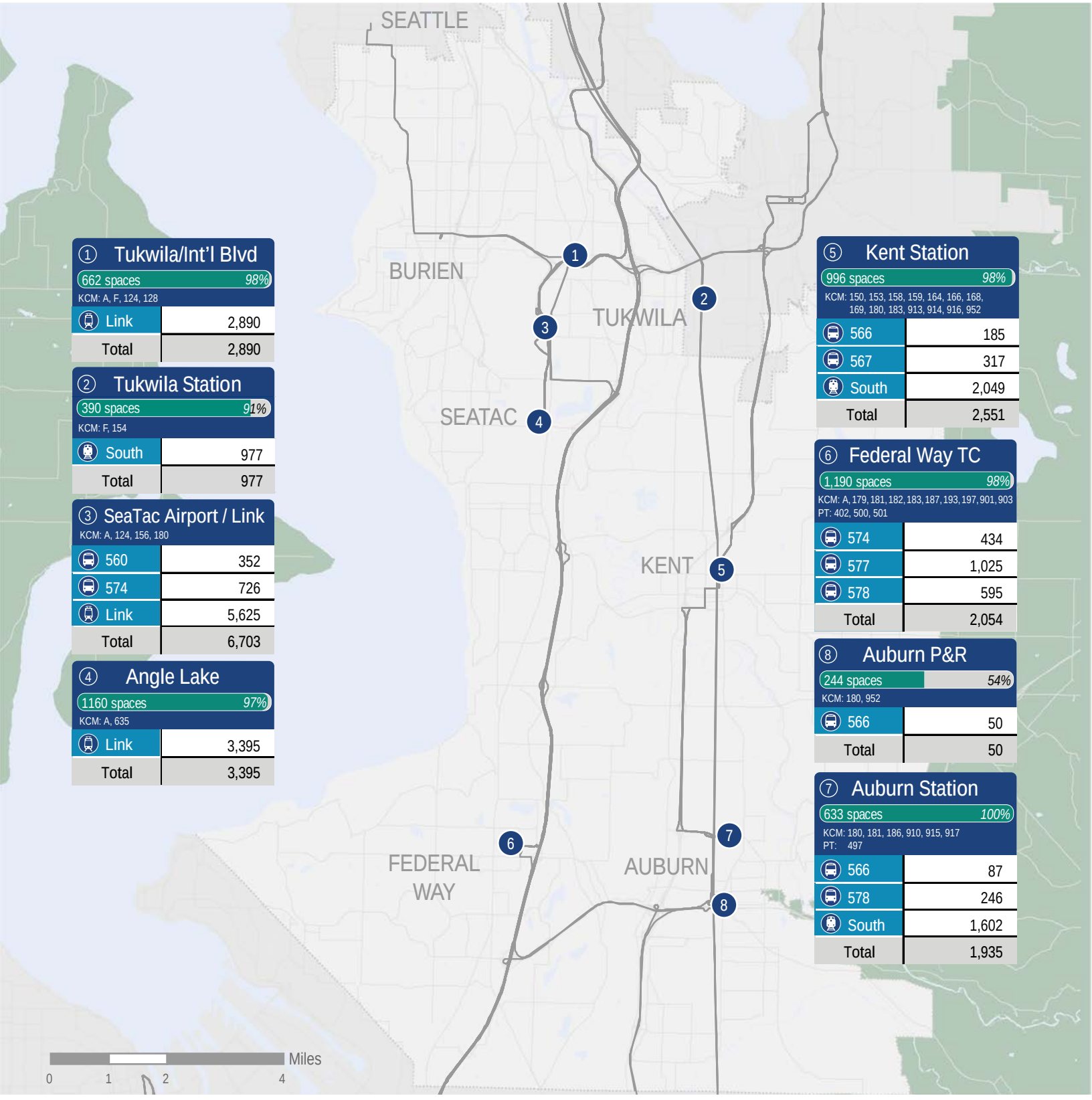
⑳ Renton TC

150 spaces 97%

KCM: F, 101, 105, 106, 107, 143, 148, 153, 167, 169, 240, 342, 907, 908

560	265
566	264
Total	529

Boardings at South King County Facilities



① Tukwila/Int'l Blvd
662 spaces 98%
KCM: A, F, 124, 128

Link	2,890
Total	2,890

② Tukwila Station
390 spaces 91%
KCM: F, 154

South	977
Total	977

③ SeaTac Airport / Link
KCM: A, 124, 156, 180

560	352
574	726
Link	5,625
Total	6,703

④ Angle Lake
1160 spaces 97%
KCM: A, 635

Link	3,395
Total	3,395

⑤ Kent Station
996 spaces 98%
KCM: 150, 153, 158, 159, 164, 166, 168, 169, 180, 183, 913, 914, 916, 952

566	185
567	317
South	2,049
Total	2,551

⑥ Federal Way TC
1,190 spaces 98%
KCM: A, 179, 181, 182, 183, 187, 193, 197, 901, 903
PT: 402, 500, 501

574	434
577	1,025
578	595
Total	2,054

⑧ Auburn P&R
244 spaces 54%
KCM: 180, 952

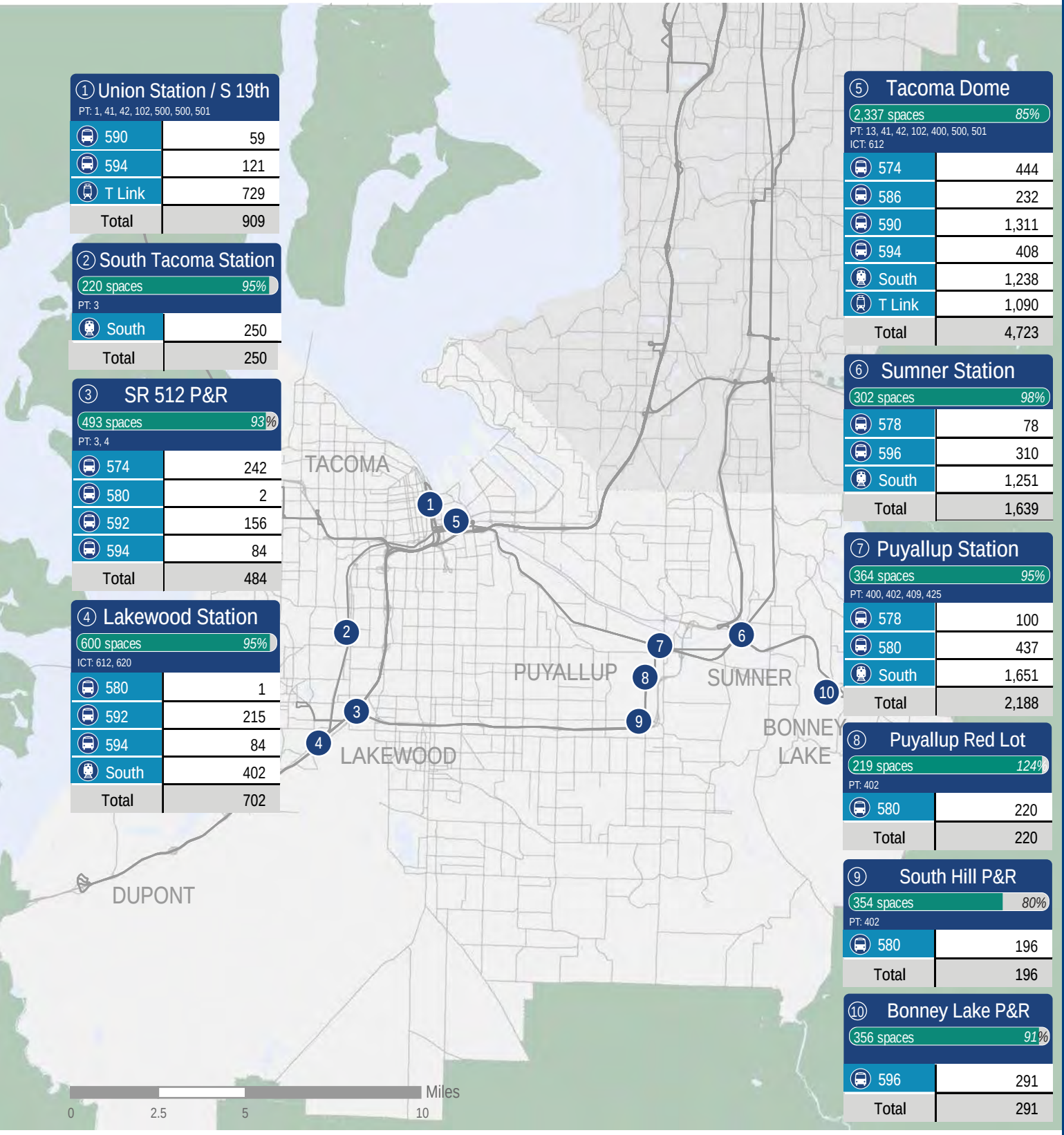
566	50
Total	50

⑦ Auburn Station
633 spaces 100%
KCM: 180, 181, 186, 910, 915, 917
PT: 497

566	87
578	246
South	1,602
Total	1,935

Figure 33: Map of Ridership at Select South King County Facilities

Boardings at Pierce County Facilities



① Union Station / S 19th
PT: 1, 41, 42, 102, 500, 500, 501

590	59
594	121
T Link	729
Total	909

② South Tacoma Station
220 spaces 95%
PT: 3

South	250
Total	250

③ SR 512 P&R
493 spaces 93%
PT: 3, 4

574	242
580	2
592	156
594	84
Total	484

④ Lakewood Station
600 spaces 95%
ICT: 612, 620

580	1
592	215
594	84
South	402
Total	702

⑤ Tacoma Dome
2,337 spaces 85%
PT: 13, 41, 42, 102, 400, 500, 501
ICT: 612

574	444
586	232
590	1,311
594	408
South	1,238
T Link	1,090
Total	4,723

⑥ Sumner Station
302 spaces 98%

578	78
596	310
South	1,251
Total	1,639

⑦ Puyallup Station
364 spaces 95%
PT: 400, 402, 409, 425

578	100
580	437
South	1,651
Total	2,188

⑧ Puyallup Red Lot
219 spaces 124%
PT: 402

580	220
Total	220

⑨ South Hill P&R
354 spaces 80%
PT: 402

580	196
Total	196

⑩ Bonney Lake P&R
356 spaces 91%

596	291
Total	291

Figure 34: Map of Ridership at Select Pierce County Facilities

SERVICE EQUITY ANALYSIS

Title VI Evaluation

As part of the annual Service Implementation Plan (SIP), Sound Transit conducts a service equity analysis, also known as a Title VI evaluation analysis, to ensure that changes to transit service are consistent with Title VI policies defined by the Federal Transit Administration (FTA) and Board policies defined by the Sound Transit Board of Directors. The FTA is responsible for ensuring that federally supported transit services and related benefits are distributed by applicants and recipients of FTA assistance in a manner consistent with Title VI, Section 601 of the Civil Rights Act of 1964, which states:

No person in the United States shall, on the grounds of race, color or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

This section of the SIP provides an assessment of potential impacts to minority, low income and limited English speaking communities associated with the proposed changes in this Service Implementation Plan.

POLICIES AND DEFINITIONS

The section below describes Sound Transit's approved policies for conducting and identifying major service changes, as well as for assessing their impacts on Title VI populations.

Service Standards and Performance Measures

Service standards and performance measures are a set of guidelines that are used to design, evaluate and modify transit service. The standards and measures establish baselines to obtain optimum efficiency and effectiveness in the system on a short-term basis, while maintaining or improving the quality of service. Planning and day-to-day management of transit service is based on the established service standards and performance measures. The guidelines provide a multi-step process to identify the level and type of service that should be provided, as well as a process to implement any changes needed to meet established priorities.

The Service Standards and Performance Measures defines the criteria for making major or administrative service changes, as well as guidelines and driving factors for the type of changes needed to ensure Sound Transit services are meeting the demand for regional transit in the Puget Sound area.

Major Service Change

Resolution R2013-18, adopted by the Sound Transit Board of Directors in 2013, established policies for conducting equity analyses of major service changes and assessing the impacts on minority and low income populations. This policy defines a major service change as follows:

- A major service change is any single change in service on an individual bus or rail route that would add or eliminate more than 25 percent of the route's weekly platform service hours,
- Move the location of a stop or station by more than a half mile.
- Closing or removing a stop or station without replacement within a half mile.

Adverse Effects

The adopted Sound Transit major service change policy, described above, also defines potential adverse effects of major service changes and thresholds for determining whether the proposed service change would have a disparate impact on minority populations and/or a disproportionate burden on low-income populations. The definitions are as follows:

- A potential adverse effect is defined as a geographical or time-based addition or reduction in service which includes but is not limited to: changes to span of service, changes to frequency of service, or elimination of routes or route segments.
- A disparate impact occurs when the minority percentage of the population adversely affected by a major service change is greater than the average minority percentage of the population of Sound Transit's service area.
- A disproportionate burden occurs when the low income percentage of the population adversely affected by a major service change is greater than the average low income percentage of the population of Sound Transit's service area.

Per Sound Transit's policy, if any disparate impact or disproportionate burden is found during the service equity analysis, Sound Transit will consider steps to avoid, minimize, or mitigate the adverse impacts and reanalyze the modified changes to determine if the impacts are removed or lessened.

DEFINITIONS AND DATA ANALYSIS

The following sections describe the data definitions and methodologies used by Sound Transit to develop estimates for Title VI populations within the Sound Transit service area.

Demographic Analysis Methodology and Title VI Data Definitions

Sound Transit uses census demographic data to identify Title VI communities (Minority, Low Income, & Limited English Proficiency) for service equity analysis and calculates the system-wide or mode specific average representation of these communities within the general population. Only Minority or Low Income status are used to determine if a disparate impact or disproportionate burden must be mitigated or analyzed. However, identifying Limited English Proficiency (LEP) residents helps Sound Transit to ensure that outreach efforts reach diverse customers. Sound Transit uses the 2010 designated Census Tracts as the geographic basis for assessing the Title VI populations.

Sound Transit uses the most recent five-year demographic estimates available from American Community Survey (ACS). The ACS dataset identifies Minority, Low Income and LEP populations as follows:

- **Minority**: Persons who self-identify as being one or more of the following ethnic groups: American Indian and Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian and Other Pacific Islander.
- **Low income:** Persons whose household income is below the federal poverty level.
- **Limited English Proficiency (LEP):** Persons who identify a language other than English as their primary language and are not fluent in English.

The following sections describe the methodology for identifying each of the Title VI populations for the purposes of the annual service equity analysis.

Service Area Methodology

Most transit agencies in the United States define their service area as a buffered distance around each of their transit routes. Given the unique service characteristics of Sound Transit service – limited stops connecting regional urban and employment centers – the agency defines its service area based on a radial distance from each transit stop, rather than the transit route alignment. Table 13 below provides details on Sound Transit's service area by stop type.

STOP TYPE	SERVICE AREA (MILES)
Bus stop without parking	0.5
Rail station without parking	1.0
Major bus facility	2.5
Rail station with parking	5.0

Table 13: Sound Transit Facility Service Area Definition

Sound Transit Title VI Population Estimates

Using the demographic analysis and Title VI definitions previously outlined in this section, percentages for the three Title VI populations for the Sound Transit service area are identified by census tract and the district overall.

The population representation for any census tract is calculated using the percentage of area that falls within the district or mode's service area to estimate the specific number of people that fall within each of the Title VI categories. For example, if a census tract total is 10 acres and 3 acres are in the service area, based on the previously identified methodologies, then 30 percent of the tract's total population, and in turn the respective Title VI populations, is considered to be within the service area. This methodology assumes an even distribution of population throughout the census tract.

Table 14 shows the Title VI population averages for the Sound Transit service area using the 2013 – 2017 ACS Dataset. Minority and low-income averages serve as a comparison in the service change analysis to determine if mitigation must be considered, while LEP averages help to advise the outreach strategy. The maps at right (Figure 24, 25) show census tracts with minority and low-income populations above the Sound Transit district average.

TITLE VI POPULATIONS	PERCENTAGE OF DISTRICT POPULATION
Minority	38.1%
Low Income	11.8%
Limited English Proficiency	10.1%

Table 14: Sound Transit District Populations

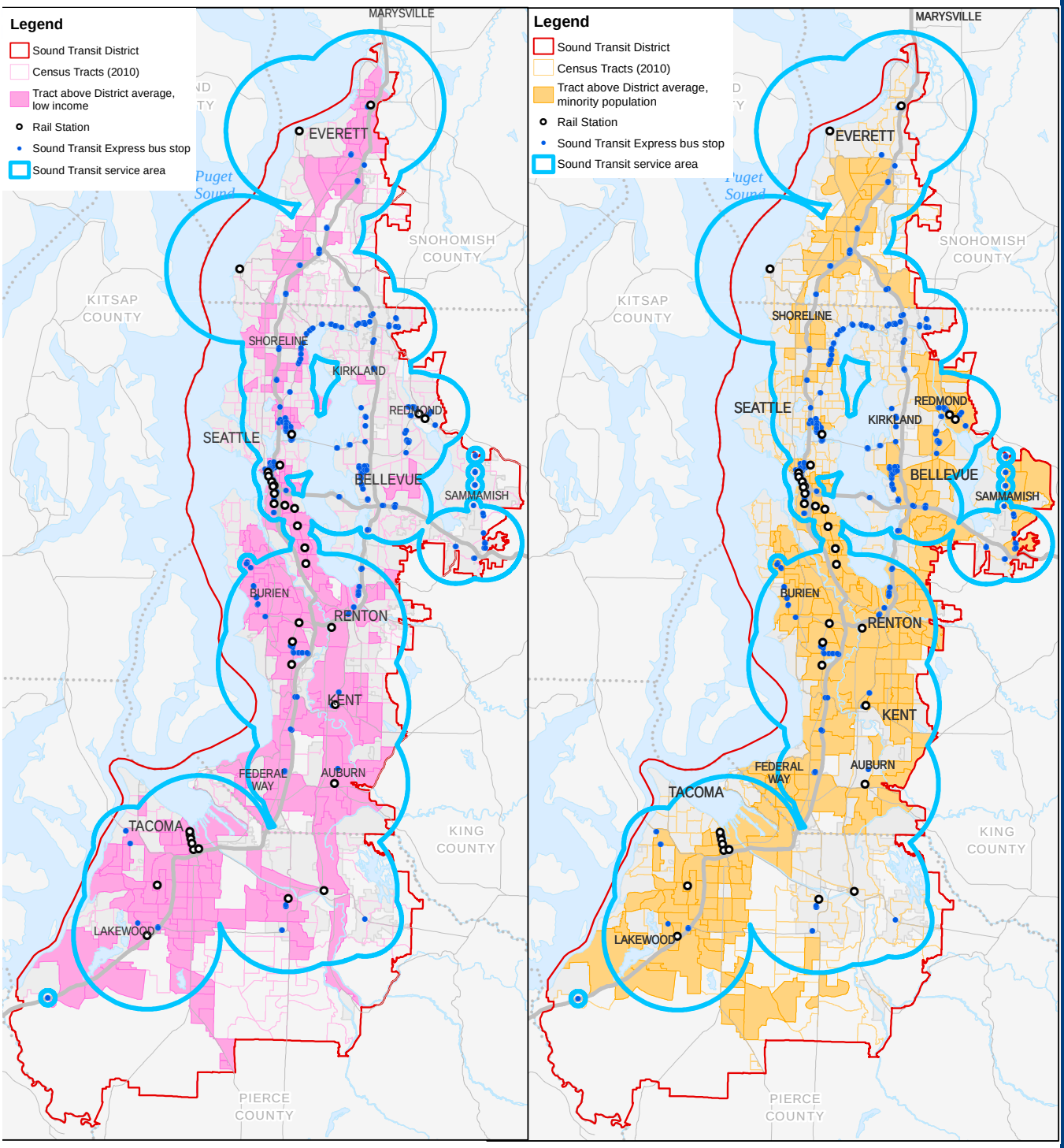


Figure 35: Low-Income & Minority Populations for Facilities Served by ST

Title VI Evaluation *of Adopted 2020 Service Changes*

Each major service change was evaluated before adoption to determine if it would cause a disparate impact or disproportionate burden to minority or low-income populations. This section describes anticipated impacts of each change and either what steps have been taken to mitigate the impact or why full mitigation is not possible. In some cases, the LEP population may be cited in order to ensure robust, multilingual outreach. Note that this Title VI evaluation was applied to the original proposal, but the updated proposal has not made any changes to route alignment, so the conclusions still apply.

NORTH EASTSIDE MOBILITY PLAN

Service Change Development

As part of our continued coordination with King County Metro and their adopted North Eastside Mobility Plan (NEMP) and to more effectively use taxpayer resources, ST Express Route 540 and most Route 541 service will be consolidated into new Route 544, serving Overlake, South Kirkland, SR 520 and South Lake Union.

Route 544 will be a peak only bi-directional route that serves Overlake P&R and South Lake Union in conjunction with King County Metro's Northeast Mobility Plan. With Metro Route 255 to serve UW Station, Route 540 is redundant. New Route 544 would use resources previously spent connecting to the University of Washington to extend service to South Lake Union. Passengers traveling between Overlake Village and UW would transfer at Evergreen Point. Because this is a new route with the discontinuation of other routes, this change requires Board Approval.

Customer Impacts

Approximately 250 Route 540 riders and 350 Route 541 riders would be impacted by this proposal. Riders served by Overlake Transit Center and Overlake Park & Ride will no longer have a one-seat to the U-District in Seattle. Instead, riders my board at the SR-520/NE 40th St freeway stop, or alternatively board Route 544 at Overlake Transit Center or Overlake Park & Ride and transfer to the 542 at the SR-520/NE 40th St freeway stop, Yarrow Point freeway station, or Evergreen Point freeway station.

Riders served by the Kirkland Transit Center and South Kirkland Park & Ride can ride King County Metro Route 255 to the Montlake Triangle. For origins and destinations beyond the Montlake Triangle, riders will need to transfer between other King County Metro and Sound Transit routes serving the U-District, including Routes 43, 44, 45, 48, 71, 73, 167, 271, 277, 373, 542, 556, and 586.

Data

Table 15 shows the percentage of low-income, minority, and LEP populations in the 540, 541, and 544 service area as compared with the Sound Transit district overall.

AREA	LEP	LOW INCOME	MINORITY
Sound Transit District	10.1%	17.7%	38.8%
540/541 Impacted Area	8.2%	18.9%	32.0%
544 Added Service Area	3.3%	14.0%	28.3%
544 Service Area Total	9.7%	10.9%	38.6%

Table 15: Title VI Populations of the Route 544 Service Area

Maps

See Appendix A for detailed maps illustrating this service equity analysis

Findings

The minority population of the impacted area at 32.0% is less than the Sound Transit District average of 38.8%. Therefore there is no disparate impact. However, the impacted area's Low-Income population is higher (18.9%) than the district average of 17.7%. The results in the determination of a disproportionate burden.

In order to mitigate the adverse effects of this change, Sound Transit coordinated closely during the development phase with King County Metro on shifting

the terminus of their Route 255 to the UW District. Route 255 will provide frequent (12-minute peak) all-day and weekend service Kirkland to the Montlake Triangle at the UW of Washington Link Station. The service provided by Route 255 is a significant improvement over Route 540 which only operated during peak periods on weekdays. As an additional mitigation measure, a westbound trip will be added to Route 542 (Redmond TC to the U-District) in order to provide more capacity for former Route 541 riders during the PM peak period.

Conclusion

Route 544 will demonstrates Sound Transit's ability to responded to evolving population and employment patterns. It will create a brand new regional connection between the underserved transit market of South Lake Union and a multitude of jobs and residents on King County's east side.

ROUTE 566 STOP DISCONTINUATION

This change was developed to improve reliability on the Renton - Bellevue and Kent - Bellevue markets for Route 566.

Customer Impacts

In the off-peak direction, customers would need to wait up to 15 minutes for the next 560 bus. Most customers should see either no change or reliability improvements as a result of this change

Customer Impacts

Total daily ridership for the two stops is just 16 boardings, and the stops delay trips as buses must leave HOV lanes to access right-side exits. This results in travel time reliability impacts to Route 566.

Route 560 would continue to serve those stops during all service hours. Through riders on Route 566 will benefit from this stop elimination by having quicker and more reliable travel times.

Overall, only 16 average weekday boardings out of 1,341 would be impacted on Route 566.

Table 16 shows the percentage of low-income, minority, and LEP populations in the Route 566 service area as compared with the Sound Transit district overall.

AREA	LEP	LOW INCOME	MINORITY
Sound Transit District	10.1%	17.7%	38.8%
566 Current Service Area	15.3%	19.4%	51.3%
566 Removed Stops	13.3%	11.1%	44.4%
566 Future Service Area	15.3%	19.5%	51.4%

Table 16: Title VI Populations of the Route 566 Service Area

Maps

Maps showing percentages of minority, low-income, and LEP populations in the Route 566 service area by census tract can be found in the Appendix.

Findings

The minority population of the impacted area at 44.4% is greater than the Sound Transit District average of **38.8%**. Therefore, there is a determination of a disparate impact. The impacted area's Low-Income population is lower (11.1%) than the district average of 17.7%, meaning there is no disproportionate burden.

Riders at these stops will continue to be served by Routes 111, 167, 342, and 560.

Conclusion

Eliminating this stop pair will result in substantial time saving and increased reliability for the approximately 1,300 average weekday Route 566 riders that do not board or alight here. Sound Transit believes the impact to the 16 rides using the stops is justified to improve overall reliability for Route 566 which is both a minority and low-income route. Impacted passengers still have the option of using Route 560 that will continue to serve these stops at all times.

ADDITIONAL WEEKEND SERVICE TO AUBURN

Sound Transit would convert Route 577 to operate as Route 578 trips on Saturdays and Sundays. Current Route 578 trips would continue to serve Sumner and Puyallup, but the new Route 578 trips would end in Auburn. The change effectively doubles weekend service between Federal Way and Auburn and makes more efficient use of operator layover time. In addition, all trips would use the current 578 routing in downtown Seattle, and Sound Transit would eliminate the current weekend 577 routing via Pine Street.

Customer Impacts

Weekend riders in Auburn will benefit from a greater number of weekend 578 trips. Passengers will no longer be able to board/alight at the Pine & 4th Ave stop. However, overlapping coverage from other stops in downtown Seattle results in no change to the overall stop coverage in the area.

Table 17 shows the percentage of low-income, minority and LEP populations in the Route 577 service area as compared with the Sound Transit district overall.

AREA	LEP	LOW INCOME	MINORITY
Sound Transit District	10.1%	17.7%	38.8%
577 Current Service Area	10.1%	19.6%	42.0%
577 Extension Additional Service Area	12.0%	27.5%	44.0%
577 Extension Service Area	10.5%	21.6%	42.5%

Table 17: Title VI Populations of Routes 577/578

Maps

Maps showing percentages of minority, low-income, and LEP populations in the Route 577 service area by census tract can be found in the Appendix.

Findings

There are no adverse effects as a result of this service change. Therefore, there is no determination of disparate impact or disproportionate burden.

Conclusion

The expanded weekend service will increase the number of trips available for Auburn passengers wishing to travel to/from Federal Way and Seattle, benefiting a service area with low income and minority populations above the ST service area average.

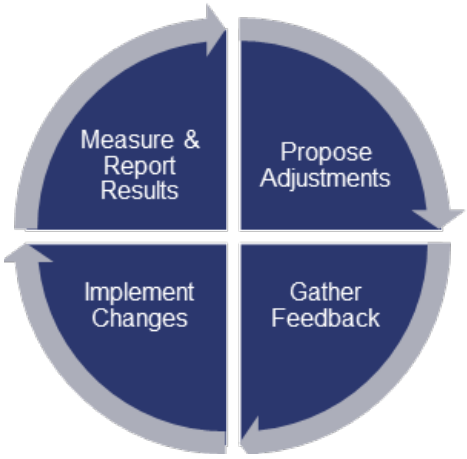
Service Quality Report

The following analysis first distinguishes routes where minority and low-income service area populations exceed the Sound Transit District average. These route classifications are then evaluated by criteria included in the board adopted Service Standards and Performance Measures document:

- On-Time Performance
- Passenger Load
- Span of Service
- Frequency
- Customer Complaints
- Trips Operated as Scheduled

Where service metrics on routes serving minority or low-income populations perform lower than non-minority or non-low-income routes or do not meet standards, strategies are identified for improving performance.

The findings from the Service Quality Monitoring analysis feed in to a cyclical process of service refinement. Results of the analysis inform proposals to adjust service, which are then vetted within the agency and the public. Service changes present the opportunity to implement improvements, which are then monitored for performance.



FINDINGS

The analysis highlighted areas within Sound Transit service that have opportunities for improvement. It was determined that routes serving minority populations greater than the district average did not perform as well in the in the following categories:

Express Bus - Minority

- On-Time Performance
- Overcrowding
- Average Headways during Peak, Base and Reduced schedule time periods

Commuter Rail - Minority

- On-Time Performance

Additionally the routes serving low-income populations greater than the district average did not perform as well in the following categories:

Express Bus - Low Income

- On-Time Performance
- Weekday and Sunday Span of Service
- Average Headways during Peak and Base schedule time periods

Standards	Minority Routes	Low Income Routes
Crowding	0.4% higher (ST Express)	None
On-Time Performance	3.7% lower (ST Express) 4.0% lower (Sounder South)	7.0% lower (ST Express)
Span of Service	None	Weekday: 1.7 hours shorter Sunday: 0.1 hours shorter (ST Express)
Frequency	Peak: 0.1 minute longer wait Base: 5 minutes longer wait Reduced: 3 minutes longer wait (ST Express)	Peak: 4 minutes longer wait Base: 5 minutes longer wait (ST Express)

Table 18: Summary of Service Quality Assessment

MINORITY ROUTES

There are 11 ST Express routes identified as serving a larger minority population than the district average.

All Sound Transit rail modes have service areas that exceed the Sound Transit district minority population. When the service area characteristics of each route are compared to the Sound Transit district, the following routes are classified as minority:

Mode	% Minority	Minority Route
ST District Average	38.8%	14
Express Bus		
510	35.8%	
511	36.1%	
512	32.6%	
513	34.9%	
522	30.3%	
532	37.2%	
535	35.4%	
540	29.3%	
541	32.9%	
542	29.4%	
545	40.2%	Yes
550	39.8%	Yes
554	38.1%	
555	34.9%	
556	30.8%	
560	53.0%	Yes
566	51.3%	Yes
567	50.3%	Yes
574	51.1%	Yes
577	42.0%	Yes
578	37.2%	
580	43.3%	Yes
586	41.3%	Yes
590	38.4%	
592	44.8%	Yes
594	44.5%	Yes
595	32.0%	
596	19.1%	
Commuter Rail		
Sounder-North	32.8%	
Sounder-South	44.6%	Yes
Light Rail		
Link	52.2%	Yes
Tacoma Link	40.7%	Yes

Table 19: Table of Minority Routes

LOW-INCOME ROUTES

Two ST Express bus routes serving Snohomish County (510 and 513) and nearly all routes serving South King and Pierce counties (560 through 596) fall under the definition of low-income. No routes serving eastern King county (522 through 556) are classified as low-income, owing to the greater general prosperity of that area.

All Sound Transit rail line service areas exceed the Sound Transit district low-income population average.

Mode	% Low Income	Low Income Route
ST District Average	17.7%	17
Express Bus		
510	20.4%	Yes
511	15.7%	
512	17.1%	
513	17.7%	Yes
522	13.4%	
532	14.7%	
535	11.6%	
540	13.6%	
541	13.9%	
542	13.6%	
545	12.5%	
550	14.0%	
554	13.2%	
555	13.5%	
556	14.5%	
560	19.0%	Yes
566	19.4%	Yes
567	17.0%	
574	27.0%	Yes
577	19.6%	Yes
578	20.2%	Yes
580	26.1%	Yes
586	30.1%	Yes
590	24.7%	Yes
592	25.5%	Yes
594	27.1%	Yes
595	19.3%	Yes
596	13.7%	
Commuter Rail		
Sounder-North	17.7%	Yes
Sounder-South	22.1%	Yes
Light Rail		
Link	23.3%	Yes
Tacoma Link	34.6%	Yes

Table 20: Table of Low Income Routes

ON-TIME PERFORMANCE

Findings

- On-time performance was lower for minority routes of ST Express (3.7%) and Sounder (4.0%), resulting in a determination of a disparate impact for this category.
- Similar to the findings of minority routes, on-time performance was worse for low-income routes compared to non-low-income ST Express routes by 7.0% resulting in a disproportionate burden. Poor on-time performance can be partly caused by routes that depend on timed connections, such as Sounder connectors 567, 580 and 596. However the primary cause of poor on-time performance is due to Sound Transit Express routes operating on public roadways. As a result, travel speed and reliability are primarily influenced by variables beyond Sound Transit's control, such as construction projects, job growth, population growth, and social/technological changes (transportation network companies, intelligent transportation systems).
- Of 28 ST Express routes 16 fell below the on-time performance standard of 85%. Of those that fell below the standard, one is considered minority but not low-income (567), three are considered low-income-only (578, 590, and 595), eight are considered both minority and low-income (560, 566, 574, 577, 580, 586, 592, 594) and four are considered neither minority nor low-income (540, 555, 556, 596). The Sounder South line, a minority and low-income route, was 92.1% on-time compared to the commuter rail standard of 95%.
- Much of the Puget Sound region's recent job growth has occurred in the Seattle/Bellevue/Renton urban areas while much of the affordable housing growth occurred in south King and Pierce counties. This vigorous economic growth and jobs-housing imbalance has fueled an overall increase in travel delay on roadways. In order to quantify evolving road conditions, the Washington State Department of Transportation (WSDOT) Corridor Capacity report publishes travel time changes for both general purpose and High Occupancy Vehicle (HOV) lanes on limited access highways in the state every year. One significant finding is that transit travel time in HOV lanes on I-5 and I-405 South is not appreciably faster than general purpose lanes. Figure 17 illustrates HOV reliability trends from 2013 to 2017.
- The I-5 corridor within Pierce and South King counties has experienced a rapid and acute increase in traffic congestion due to sharp rises in traffic volumes (during both peak and non-peak time periods) and construction projects. This corridor is traveled by with multiple ST Express routes that fall under the minority classification. Figure 18 illustrates that this is a significant contributor to delay for Routes 574, 586, 590, 592, 594, and 595, all of which performed below the 85% on-time standard in 2018.

High occupancy vehicle lane speed and reliability performance on major central Puget Sound corridors
2013 through 2017; Goal is to maintain 45 mph for 90% of peak hour; Percent of peak hour goal was met

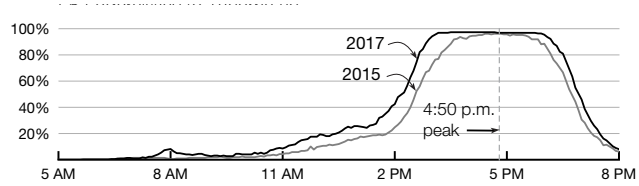
Commute routes	2013	2014	2015	2016	2017	Commute routes	2013	2014	2015	2016	2017
Morning commutes						**Evening commutes**					
I-5, Everett to Seattle SB	42%	28%	26%	19%	**18%**	I-5, Seattle to Everett NB	66%	46%	36%	21%	**12%**
I-5, Federal Way to Seattle NB	43%	30%	18%	18%	**15%**	I-5, Seattle to Federal Way SB	53%	40%	32%	21%	**19%**
I-405, Tukwila to Bellevue NB	65%	35%	26%	24%	**22%**	I-405, Bellevue to Tukwila SB	41%	26%	21%	18%	**14%**
I-90, Issaquah to Seattle WB[1]	100%	98%	98%	97%	**89%**	I-90, Seattle to Issaquah EB[1]	99%	100%	99%	97%	**94%**
SR 520, Redmond to Bellevue WB	50%	44%	63%	61%	**50%**	SR 520, Bellevue to Redmond EB	52%	52%	73%	71%	**65%**

Data source: WSDOT Multimodal Planning Division.

Figure 36 : HOV Lane Reliability by Corridor, WSDOT 2018

Mitigation

- ST Express: Confronted with degradation in travel speeds for HOV and general purpose lanes, Sound Transit made substantial increases in run times for the September 2017 service change, adding about 15,000 hours to address reliability improvements.
 - Based on 2018 observations additional resources need to be directed at ensuring scheduled travel times more accurately reflect current traffic conditions. Minority and low-income routes with the lowest performance will receive the greatest consideration for adjustments and additional and/or reallocated resources. These improvements to timetables will result in minor service changes.
 - The findings from the 2018 Corridor Capacity report also highlight the importance of continually monitoring performance of HOV lanes and making policy adjustments where appropriate in order to maintain reliable travel times during peak periods. Sound Transit, WSDOT and its partners are working together to identify bottlenecks where capital improvements can be made in order to allow Bus On Shoulder (BOS) operations.



Data sources and analysis: WSDOT Multimodal Planning Division and WSDOT Office of Strategic Assessment and Performance Analysis.

- Sounder: Sound Transit leases track space from BNSF railroad, giving it greater control over on-time performance relative to public roadways. Yet freight traffic, grade-level crossings, maintenance issues and police activity near or around the rail line all contribute toward reduced travel time reliability on the Sounder South line. Improving travel time reliability will continue to be a focus with Sound Transit and its operating partners by developing opportunities to streamline service, reduce trespassing, and make schedule adjustments.

PASSENGER LOAD

Findings

- Overcrowding was higher for minority routes of ST Express by 0.4%, resulting in a determination of a disparate impact for this category.
- Low-income routes experienced less overcrowding than their non-low-income peers by 0.6%.
- While the Sound Transit overcrowding standard is relatively strict at 0.0% across all modes, crowding rates greater than 1.0% on Link, Tacoma Link, 545, 550, and 580 do indicate that some overcrowding occurred on a regular basis.

Mitigation

- ST Express: In March 2019, Route 550 experienced a drop in ridership relating to the closure of the Downtown Seattle Transit Tunnel to buses. Also in June 2018, trips were added to the Route 580 schedule to alleviate overcrowding and better match demand patterns. Sound Transit is closely monitoring these changes in order to establish whether additional corrective actions need to be taken. Trips will be added or scheduled adjustments made to Route 545 in March 2020 in an effort to alleviate overcrowding. For other routes, Sound Transit will work closely and continuously with operating partners to assign higher capacity vehicles to trips where they are most needed. Operating partners use automatic passenger counter data, field reports, and customer comments to identify trips where higher capacity vehicles are most needed.

- Sounder: Overloading is most likely to occur during service disruptions, such as when trip cancellations divert passengers onto remaining trips. Because Sounder is peak-oriented and limited in train car and track capacity, there is limited ability to expand peak service and enhance system redundancy. Looking ahead, the ballot measure passed in 2016 called "ST3" includes funding for extending station platforms to facilitate 10-car trains.
- Link: While overcrowding occurs most frequently on Link, there is limited ability to address the situation due to constraints of the existing light rail fleet size. However, the commencement of operations for the Northgate Link extension in 2021 will allow for the operation of four-car trainsets compared to the two- and three-car trainsets that operated in 2018. This will significantly increase the seating capacity available to passengers. Tacoma Link overcrowding is primarily tied to special events at the Tacoma Dome and University of Washington class schedules. When the Tacoma Link extension opens in 2022, peak headways will improve to 10 minutes compared to 12 minutes in 2018. This will result in one additional train car per hour per direction.

FREQUENCY

Findings

- Average headways for Peak, Base, and Reduced time periods on minority routes were longer than their non-minority counterparts on ST Express by about 0.1 minute (~6 seconds), 5 minutes, and 3 minutes, respectively. This means that average wait time for a passenger randomly arriving at a stop for a minority route would be longer, resulting in a disparate impact.
- Average headway of service was longer for low-income routes than non-low-income routes during Peak and Base time periods by about 4 minutes and 5 minutes, respectively. This results in a disproportionate burden.

Mitigation

Sound Transit is planning a major restructure in 2021 with the opening of Northgate Link Extension. The restructure will be focused on ST Express service and will include I-5 North, SR-522, and I-5 South corridors. Sound Transit will closely monitor passenger demand and work to match schedule frequency accordingly, especially during off-peak periods when headways (and therefore average wait times) tend to be longer.

SPAN OF SERVICE

Findings

- The average span of service was higher for minority routes across all day types.
- Average span length for low-income routes was shorter on Weekdays by 1.7 hours and Sundays by 6 minutes compared to non-low-income routes. This resulted in a disproportionate burden.
- Eight low-income routes (510, 513, 577, 580, 586, 590, 592, and 595) operate mainly during peak periods, driving down the average span length overall. Most of these routes operate in corridors with a complimentary all-day route to cover a larger span of service.
- Four of the seven all-day low-income routes have weekday service spans exceeding 18 hours. ST Express routes which serve Sea-Tac International airport (560, 574) have the longest spans due to the 24-hour operational nature of this important regional employment center.

Mitigation

Sound Transit is planning a major restructure in 2021 with the opening of Northgate Link Extension. The restructure will be focused on ST Express service and will include I-5 North, SR-522, and I-5 South corridors. Sound Transit will closely monitor passenger demand and work to match service span accordingly. Particular attention will be placed on earlier and later trips in order to expand the utility of the system for passengers.

CUSTOMER COMPLAINTS

Findings

Average customer complaint rates were lower for minority (by 2.8%) and low-income routes (by 3.1%).

Mitigation

No mitigation is necessary for this measure.

POLICIES

Sound Transit is developing equity policies on Vehicle Assignment and Distribution of Transit Amenities. Once adopted in 2020, monitoring of these policies will occur on an annual basis and be incorporated into service adjustments where appropriate. Prior to the adoption of these policies, the agency performed a Title VI Service Quality Monitoring analysis based on 2018 data in order to establish a baseline understanding of the existing conditions.

DISTRIBUTION OF TRANSIT AMENITIES

Findings

- The combined service area of all stops and stations served by all modes covers 86.6% of the total population, 87.5% of the minority population, and 87.4% of the low-income population in the Sound Transit district.
- All facilities owned and/or by Sound Transit offer weather protection and schedule/wayfinding information.
- Facilities served by Sound Transit that are owned by other agencies may not offer weather protection schedule/wayfinding information in every instance.

Mitigation

Sound Transit is developing a clearer standard for defining “higher ridership stops” and working with partners on providing additional amenities where appropriate.

TRIPS OPERATED AS SCHEDULED

Findings

For all modes, minority routes were just as likely or more likely to operate as scheduled in 2018.

For all modes, low-income routes were just as likely or more likely to operate as scheduled in 2018.

Mitigation

No mitigation is necessary for this measure.

VEHICLE ASSIGNMENT

Findings

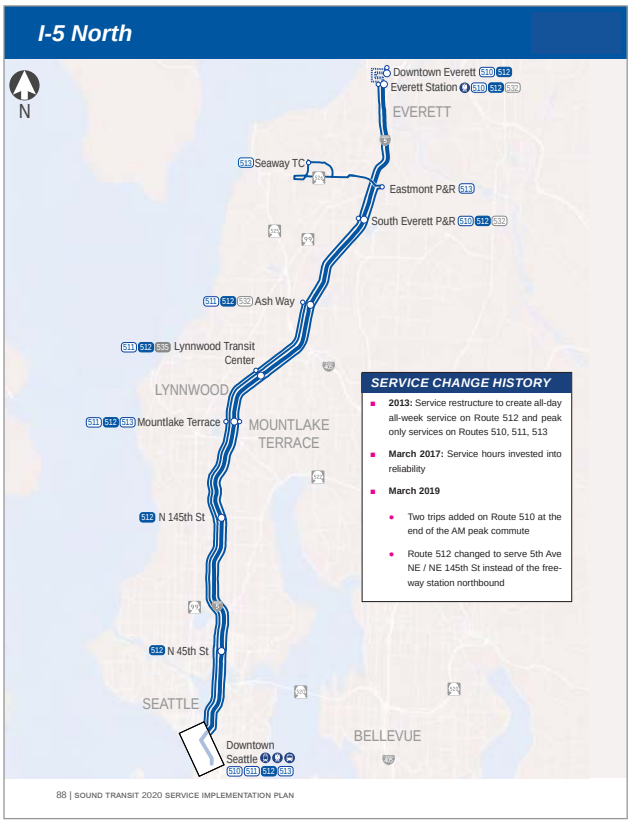
- In 2018, Community Transit had the youngest fleet at an average age of 4.8 years. King County Metro had the oldest fleet average at 8.2 years, and Pierce Transit had second-youngest fleet average at 6.8 years.
- Community Transit operated no minority routes, King County Metro operated two minority routes and Pierce Transit operated the most minority routes among ST Express partners (nine).
- Community Transit operated two low-income routes, King County Metro operated no low-income routes, and Pierce Transit operated the most low-income routes among ST Express partners (11).

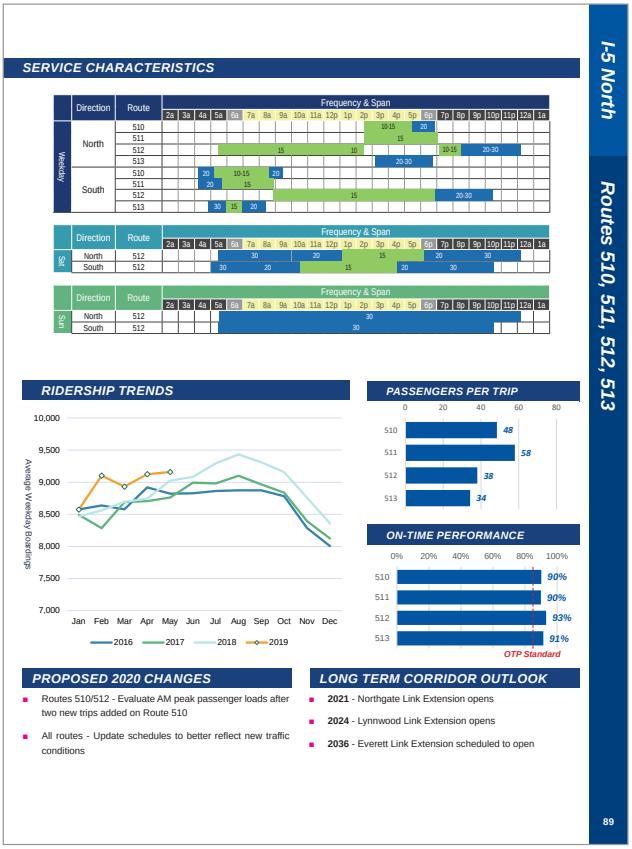
Mitigation

- Sound Transit intends to adopt a vehicle age policy and oversight plan that will formalize the targets established by industry best practices and clarify the process for ensuring the equitable distribution of new procurements.
- Pierce Transit is next on the list for fleet refreshment. The operating agency will receive 22 new vehicles in 2021, with more to follow in subsequent years, with the goal of balancing out the fleet ages for each operating partner.

ROUTE PROFILES

Interpreting the detailed data





Corridor

Identifies the corridor being profiled.

Corridor Map

Illustrates the primary alignment of each route on the corridor and calls out timepoint stops. Many routes have more stops, although for clarity only timepoints are labelled.

Routes labelled in colored boxes serve the corridor all day and all week, while routes labelled in white boxes serve the corridor only part time. Those routes in grey boxes are part of different corridors.

Key performance indicators

For each route in the corridor, shows:

- Average total daily boardings for weekdays, Saturdays, and Sundays
- On-time performance, showing the percentage of trips operating on time, as defined by the Service Standards
- Average passengers per trip for weekdays.

Service Levels

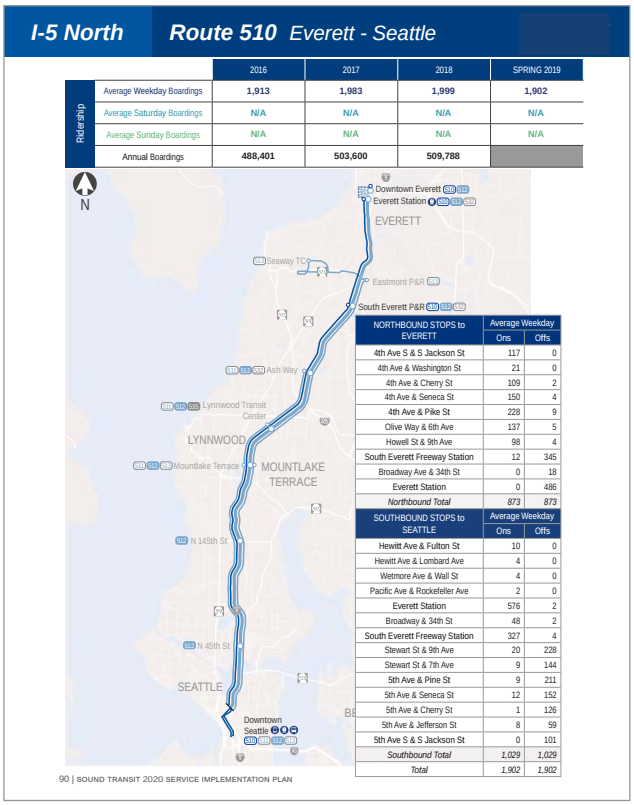
This diagram gives a glimpse of how often buses and trains arrive on the corridor by day of week and direction and how long service runs. It is not route-specific.

Service frequency, how often service arrives, is grouped into four categories define in the table below. Generally, the more often transit arrives the more spontaneously customers will use the service without referencing a schedule. Frequent service also reduces wait times for customers.

SERVICE FREQUENCY

Buses and trains arrive every:

Very Frequent	Less than 10 minutes
Frequent	10 to 20 minutes
Moderate	21 to 30 minutes
Minimum	31 to 60 minutes



I-5 North **Route 510** *Everett - Seattle*

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	1,913	1,983	1,999	1,902
Average Saturday Boardings	N/A	N/A	N/A	N/A
Average Sunday Boardings	N/A	N/A	N/A	N/A
Annual Boardings	488,401	503,600	509,788	

NORTHBOUND STOPS to EVERETT	Average Weekday Ons	Offs
4th Ave S & S Jackson St	117	0
4th Ave & Washington St	21	0
4th Ave & Cherry St	109	2
4th Ave & Seneca St	150	4
4th Ave & Pike St	228	9
Olive Way & 6th Ave	137	5
Howell St & 9th Ave	98	4
South Everett Freeway Station	12	345
Broadway Ave & 34th St	0	18
Everett Station	0	486
Northbound Total	*873*	*873*

SOUTHBOUND STOPS to SEATTLE	Average Weekday Ons	Offs
Hewitt Ave & Fulton St	10	0
Hewitt Ave & Lombard Ave	4	0
Wetmore Ave & Wall St	4	0
Pacific Ave & Rockefeller Ave	2	0
Everett Station	576	2
Broadway & 34th St	48	2
South Everett Freeway Station	327	4
Stewart St & 9th Ave	20	228
Stewart St & 7th Ave	9	144
5th Ave & Pine St	9	211
5th Ave & Seneca St	12	152
5th Ave & Cherry St	1	126
5th Ave & Jefferson St	8	59
5th Ave S & S Jackson St	0	101
Southbound Total	*1,029*	*1,029*
Total	*1,902*	*1,902*

Three-Year Ridership Trends

Graphs display average boardings on weekdays, Saturdays, and Sundays for each of the past three years. Ridership trends are shaped by service modifications or changes in demand.

Route Map

Illustrates the primary alignment of the route in the context of the greater corridor. Timepoint stops are called out and other stops are marked with white dots though not labelled.

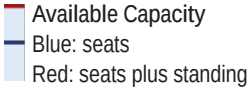
Stop-Level Ridership

Average weekday boardings and alightings are shown for each stop for each direction of the route. Timepoint stops are in bold and correspond with the stops shown on the route map above.

Individual Trip Ridership & Passenger Load Graphs

Each graph illustrates the average ridership and maximum passenger load of the route by individual trip for both directions of the service.

Available Capacity



Available Capacity
Blue: seats
Red: seats plus standing

The light blue bars show total available capacity for each trip, both seated and standing passengers. The capacity shown is based on the vehicle scheduled to operate the individual trip, which may vary by trip. The number of standing passengers is defined based on the service standards.

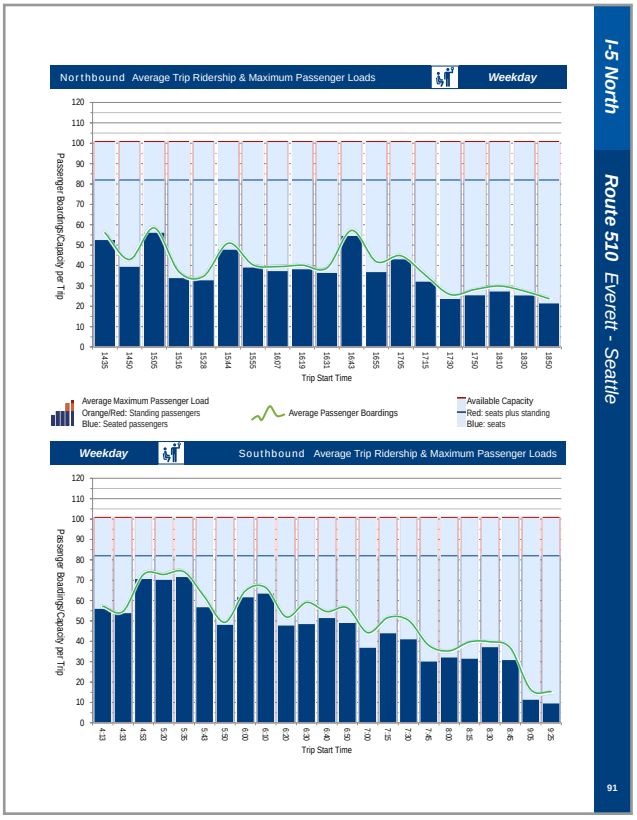
Average Maximum Passenger Load



Average Maximum Passenger Load
Blue: Seated passengers
Orange/Red: standing passengers

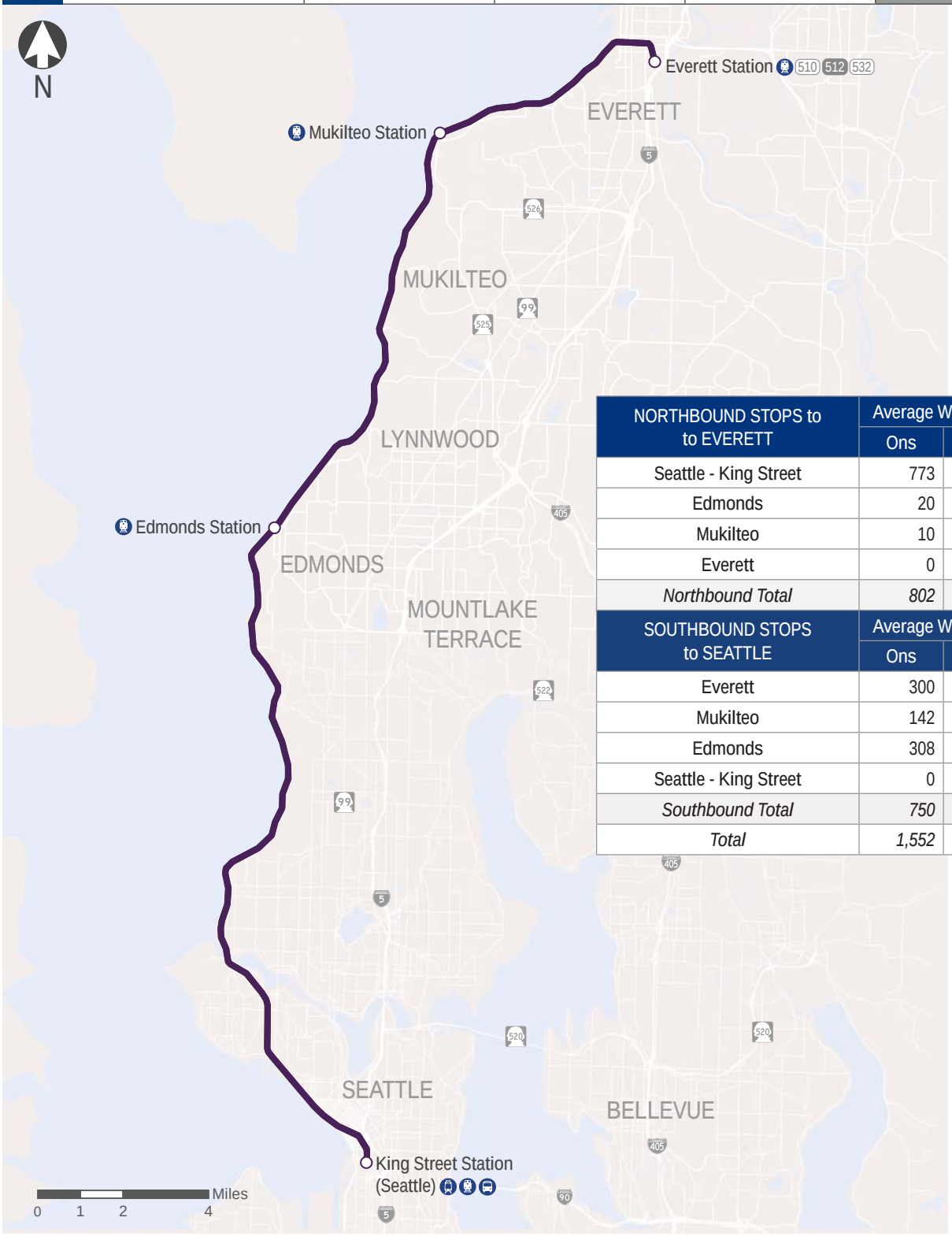
Colored bars show the Average Maximum Passenger Load for each trip that the route operates. This is the point in the trip where the number of passengers on the transit vehicle at a specific point was the highest. Blue are seated passengers, while orange and red show standing passengers, with red exceeding a target standing load.

Standing loads are a normal occurrence on a healthy transit system, including Sound Transit, and are not a sole cause for immediate action. Sound Transit continually monitors service and uses the service standards to identify crowding conditions. The agency uses several service management tools to reduce overcrowding as the budget allows, including: schedule adjustments to balance loads, assigning larger buses or longer train consists, and adding additional trips.



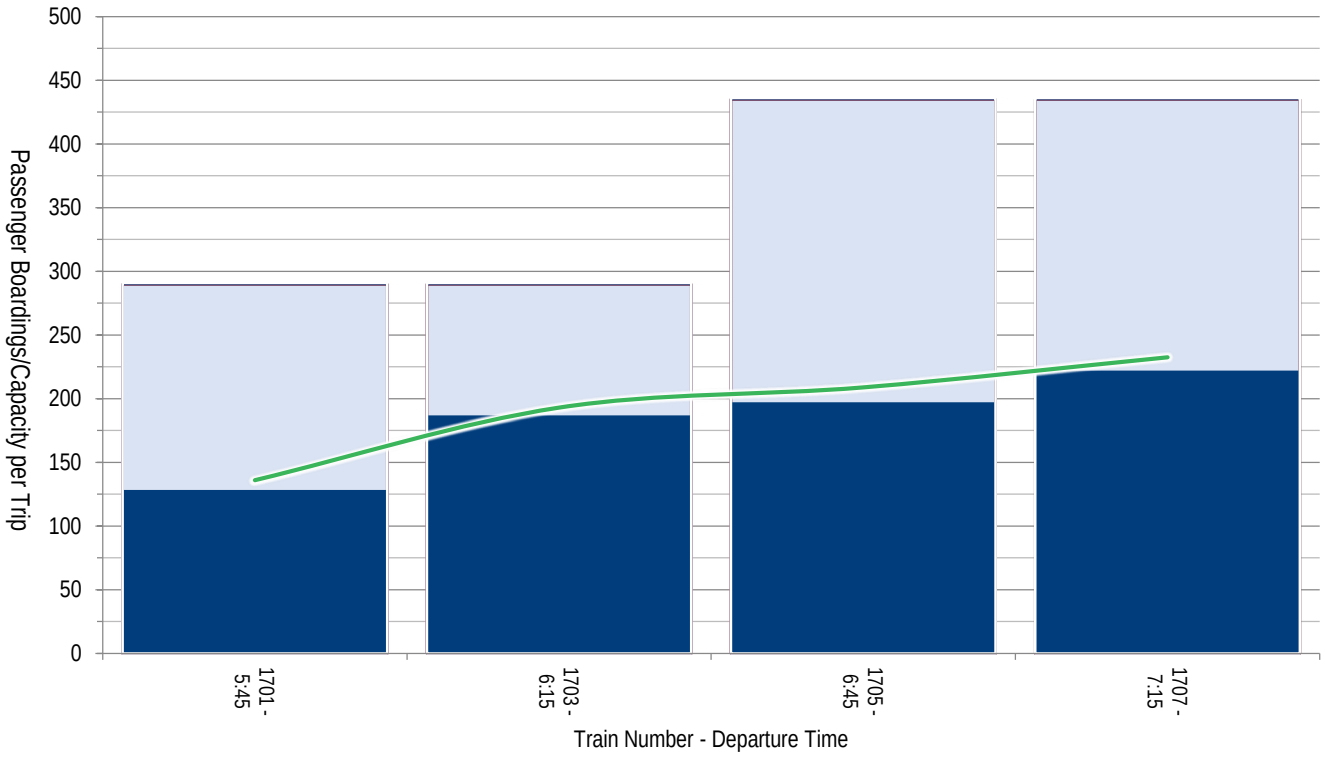
Sounder North Everett - Seattle

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	1,757	1,728	1,625	1,552
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	392,193	463,152	453,004	



NORTHBOUND STOPS to to EVERETT	Average Weekday	
	Ons	Offs
Seattle - King Street	773	0
Edmonds	20	387
Mukilteo	10	175
Everett	0	240
Northbound Total	*802*	*802*
SOUTHBOUND STOPS to SEATTLE	**Average Weekday**	
	Ons	Offs
Everett	300	0
Mukilteo	142	13
Edmonds	308	23
Seattle - King Street	0	713
Southbound Total	*750*	*750*
Total	*1,552*	*1,552*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

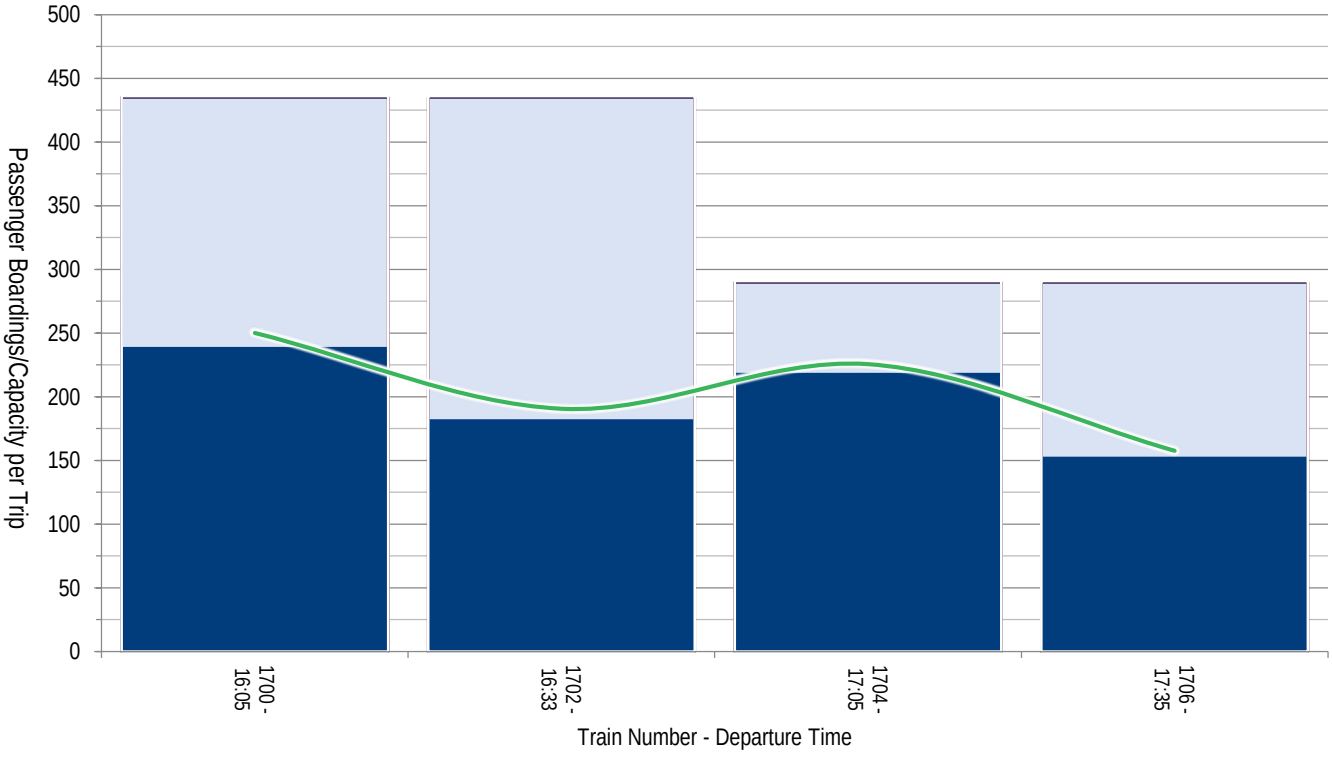


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads

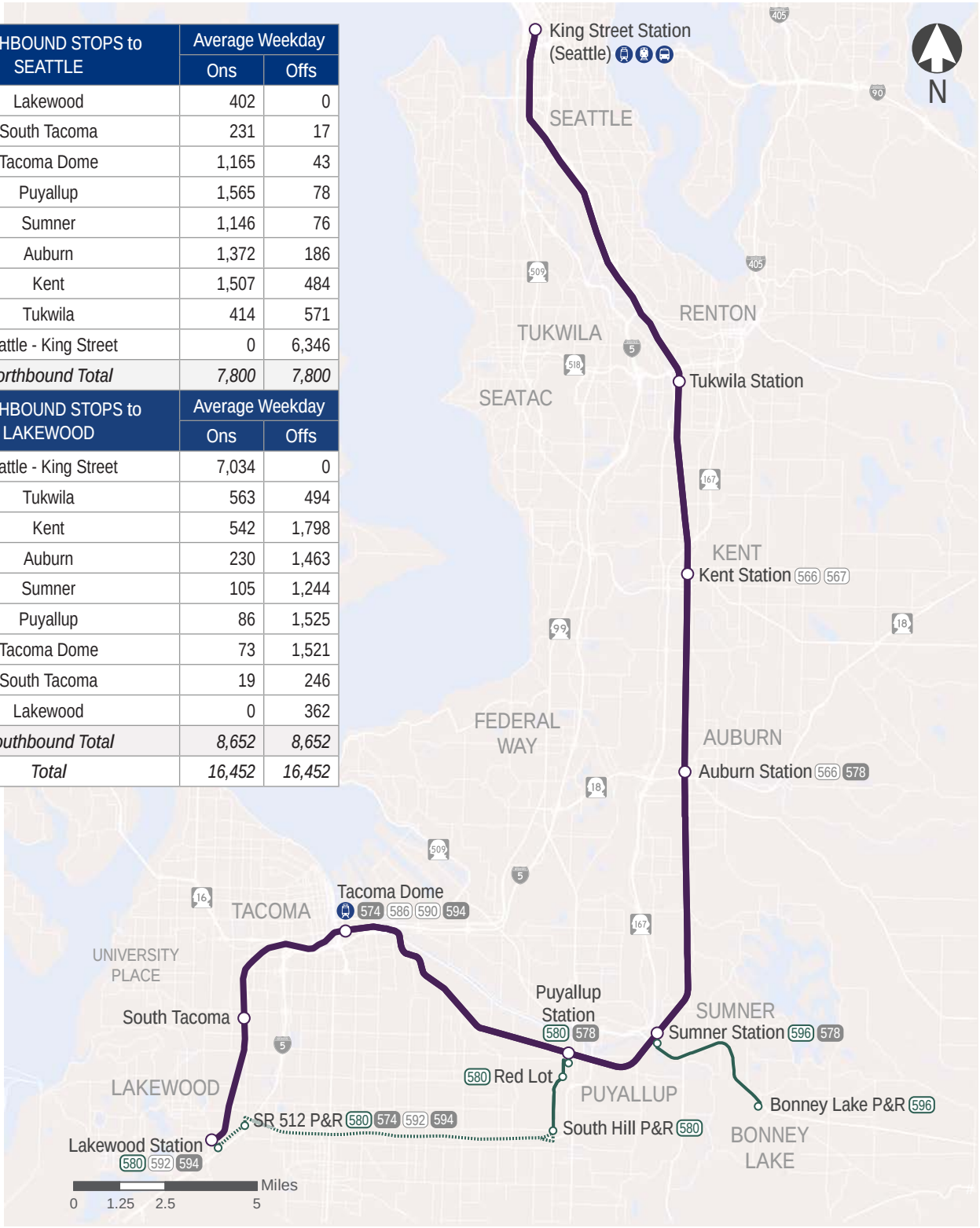


Sounder

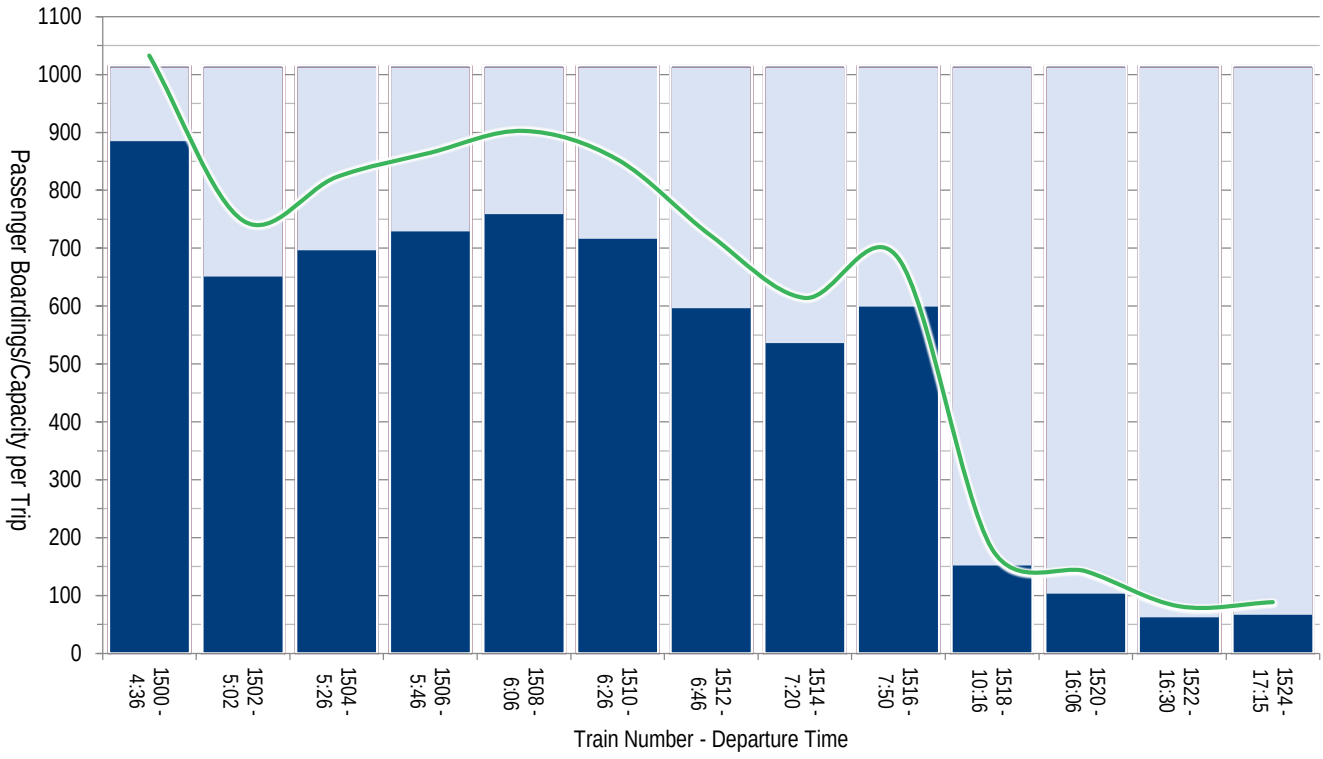
South Lakewood - Tacoma - Seattle

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	**14,940**	**15,536**	**16,222**	**16,452**
	Average Saturday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Average Sunday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Annual Boardings	**3,848,961**	**3,984,610**	**4,177,475**	

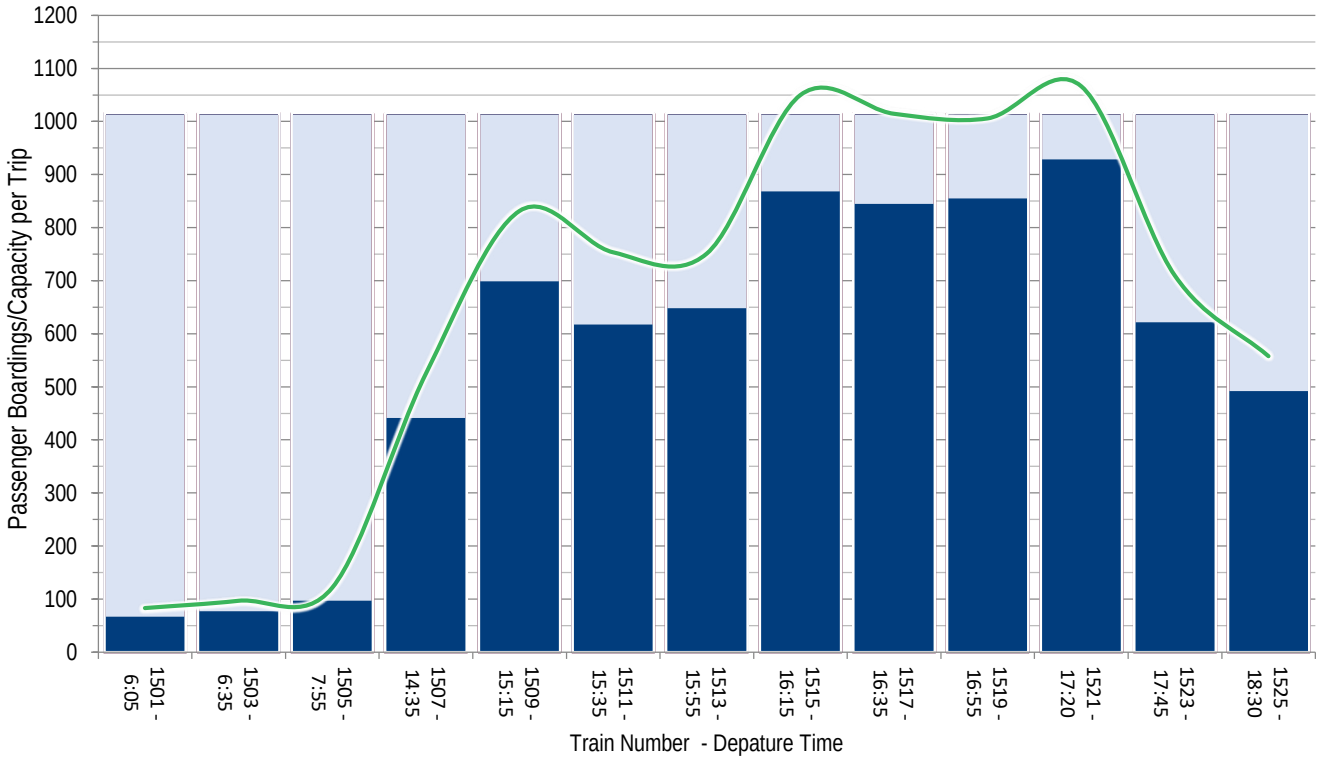
NORTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Lakewood	402	0
South Tacoma	231	17
Tacoma Dome	1,165	43
Puyallup	1,565	78
Sumner	1,146	76
Auburn	1,372	186
Kent	1,507	484
Tukwila	414	571
Seattle - King Street	0	6,346
Northbound Total	*7,800*	*7,800*
SOUTHBOUND STOPS to LAKEWOOD	**Average Weekday**	
	Ons	Offs
Seattle - King Street	7,034	0
Tukwila	563	494
Kent	542	1,798
Auburn	230	1,463
Sumner	105	1,244
Puyallup	86	1,525
Tacoma Dome	73	1,521
South Tacoma	19	246
Lakewood	0	362
Southbound Total	*8,652*	*8,652*
Total	*16,452*	*16,452*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



Weekday Southbound Average Trip Ridership & Maximum Passenger Loads

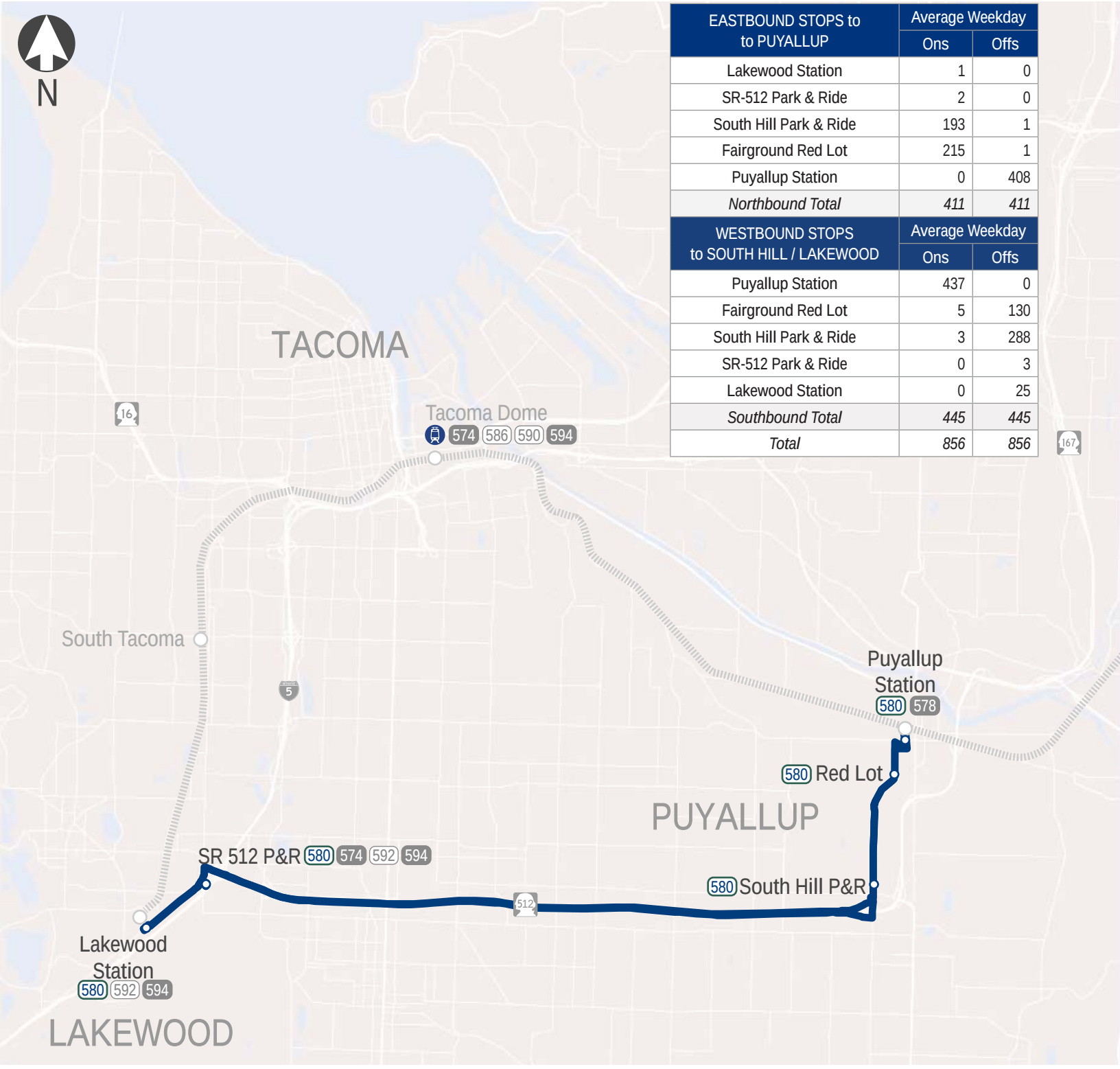


Sounder Connector

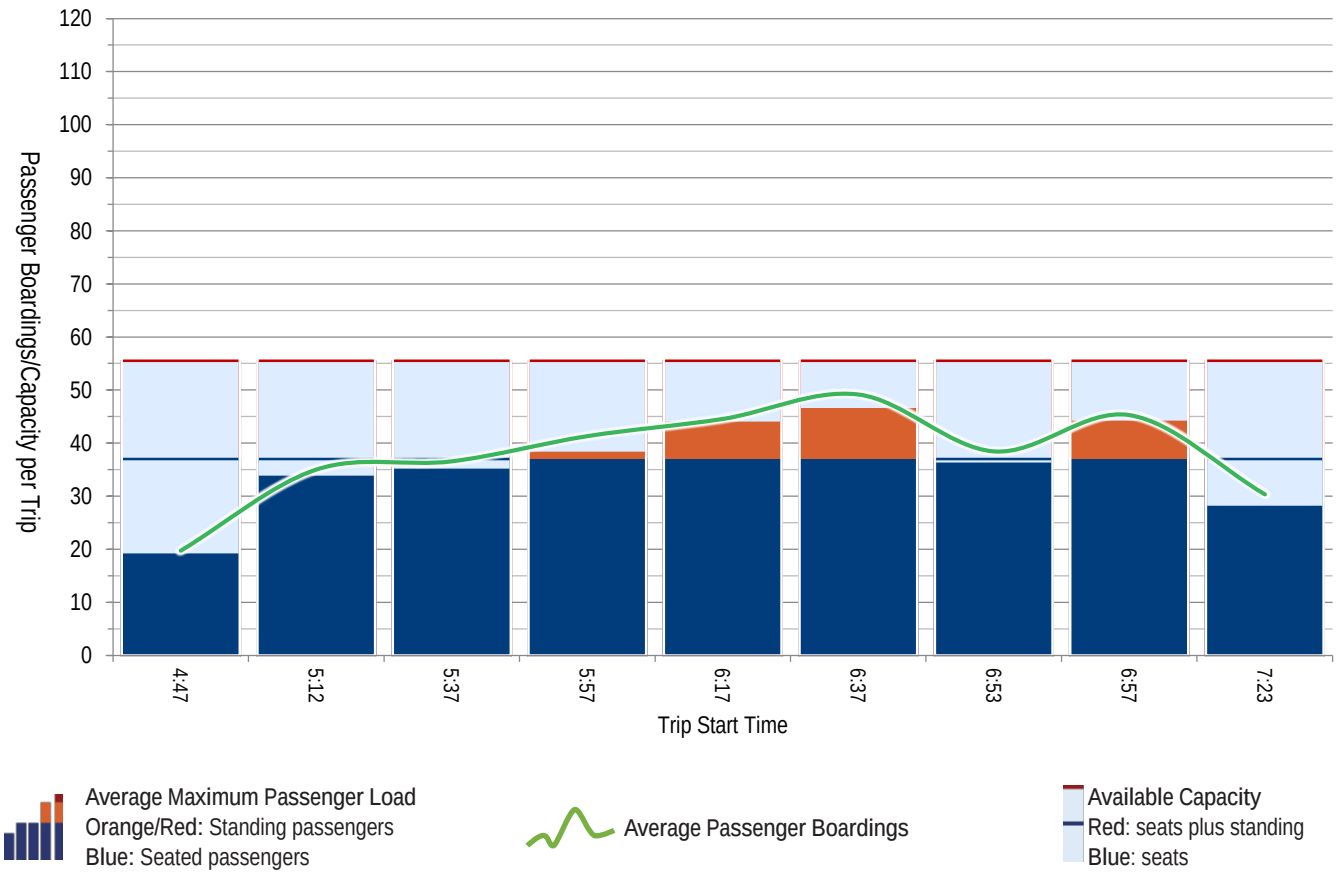
Route 580 Lakewood - South Hill - Puyallup

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	489	621	777	856
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	124,657	157,820	198,152	

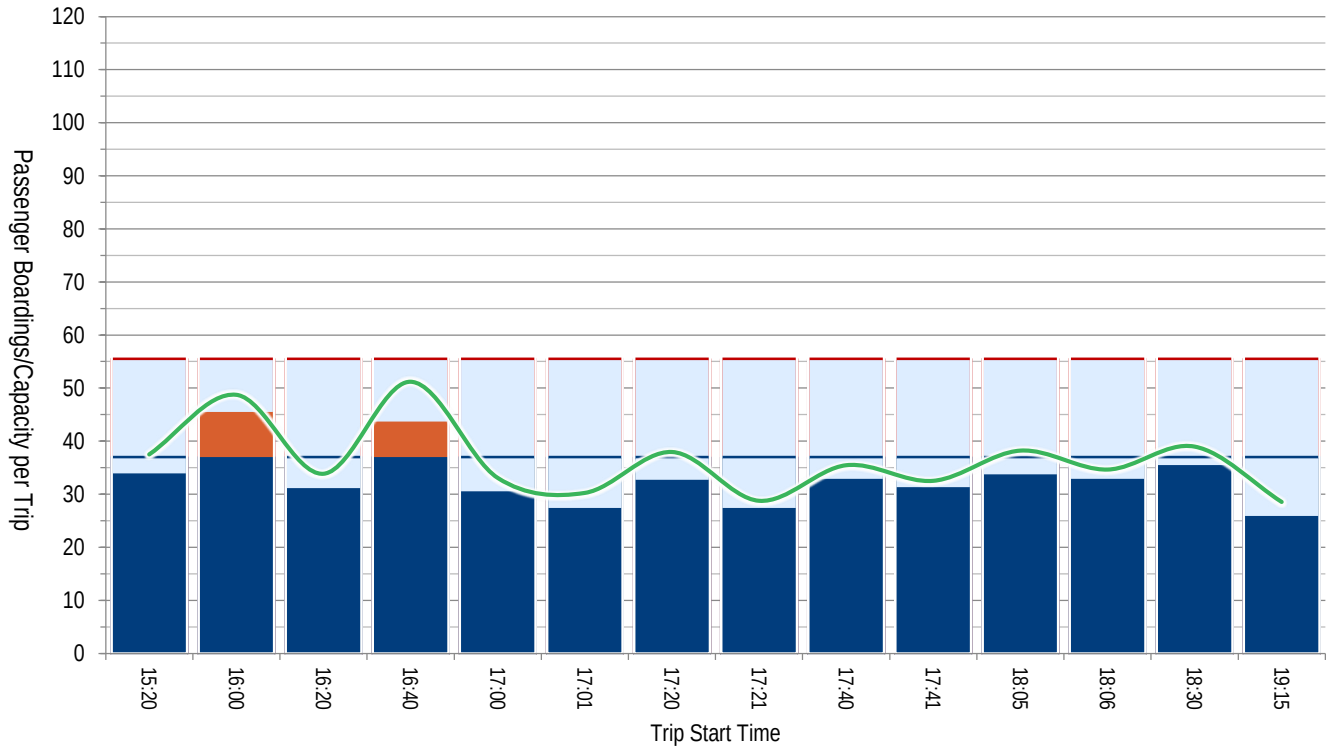
EASTBOUND STOPS to to PUYALLUP	Average Weekday	
	Ons	Offs
Lakewood Station	1	0
SR-512 Park & Ride	2	0
South Hill Park & Ride	193	1
Fairground Red Lot	215	1
Puyallup Station	0	408
Northbound Total	*411*	*411*
WESTBOUND STOPS to SOUTH HILL / LAKEWOOD	**Average Weekday**	
	Ons	Offs
Puyallup Station	437	0
Fairground Red Lot	5	130
South Hill Park & Ride	3	288
SR-512 Park & Ride	0	3
Lakewood Station	0	25
Southbound Total	*445*	*445*
Total	*856*	*856*



Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday



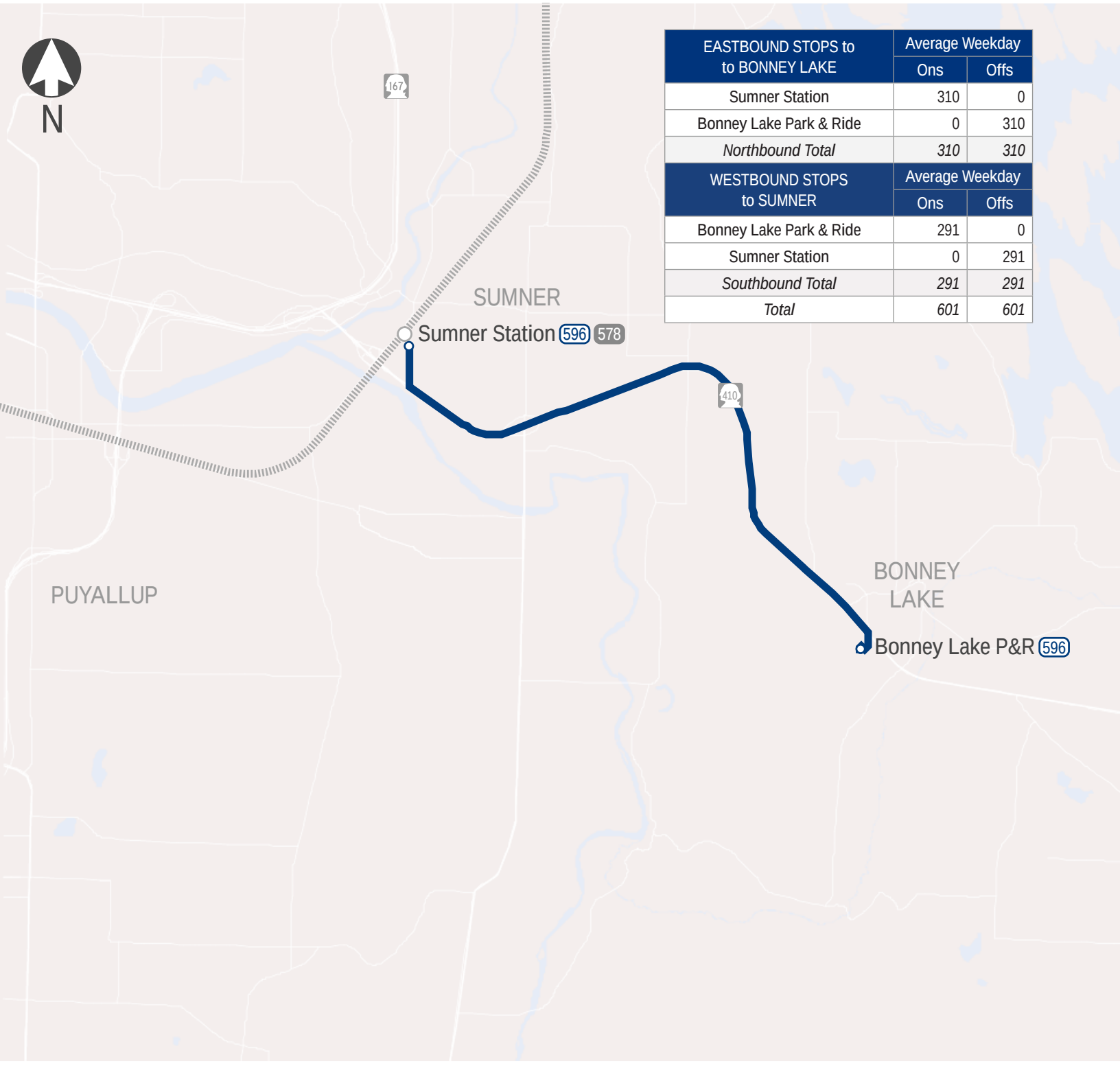
Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



Sounder Connector

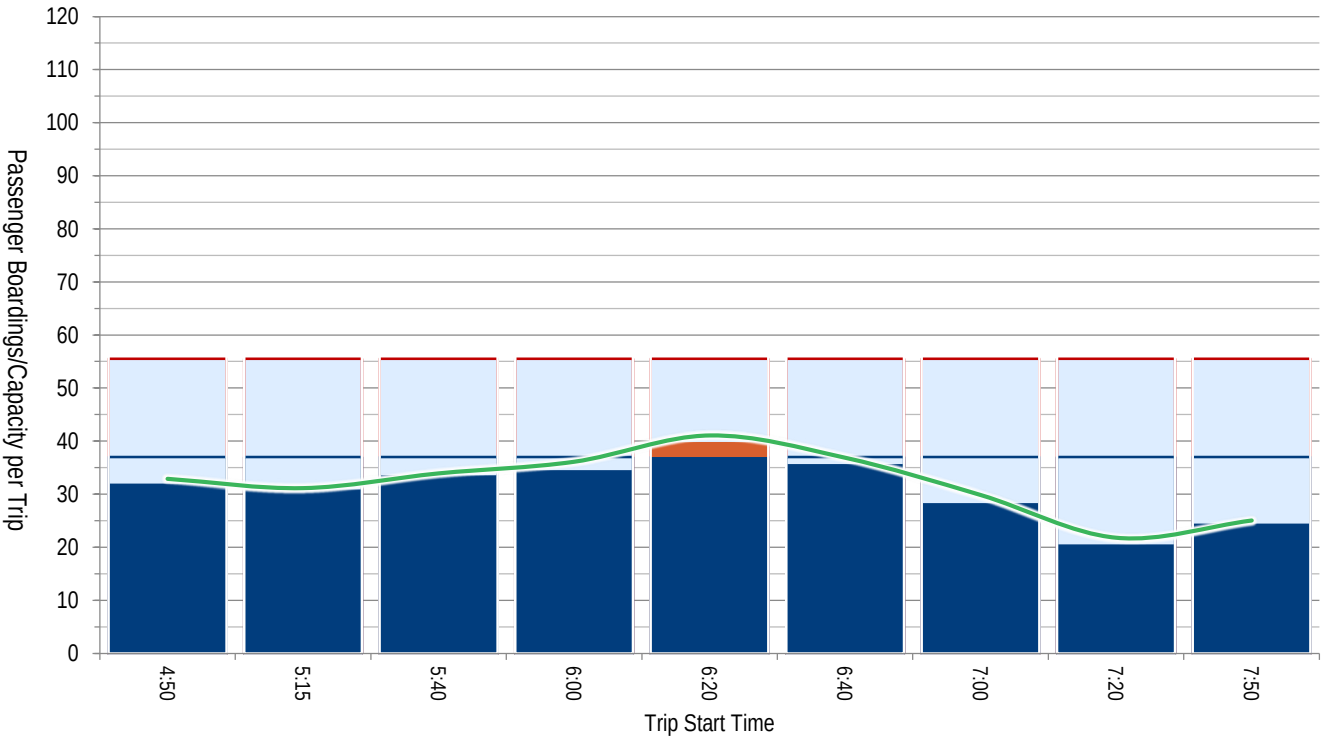
Route 596 Bonney Lake - Sumner

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	478	493	586	601
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	121,821	125,247	149,512	



EASTBOUND STOPS to to BONNEY LAKE	Average Weekday	
	Ons	Offs
Sumner Station	310	0
Bonney Lake Park & Ride	0	310
Northbound Total	*310*	*310*
WESTBOUND STOPS to SUMNER	**Average Weekday**	
	Ons	Offs
Bonney Lake Park & Ride	291	0
Sumner Station	0	291
Southbound Total	*291*	*291*
Total	*601*	*601*

Westbound Average Trip Ridership & Maximum Passenger Loads — Weekday

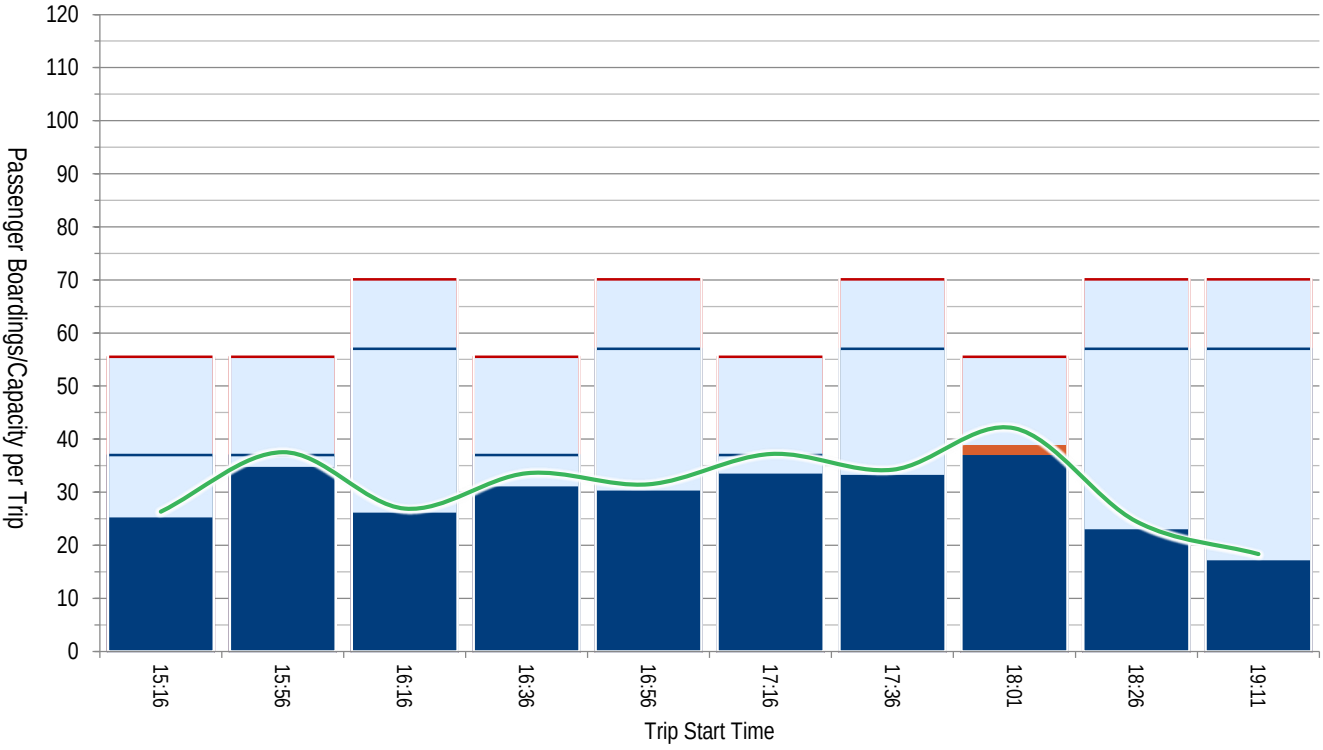


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

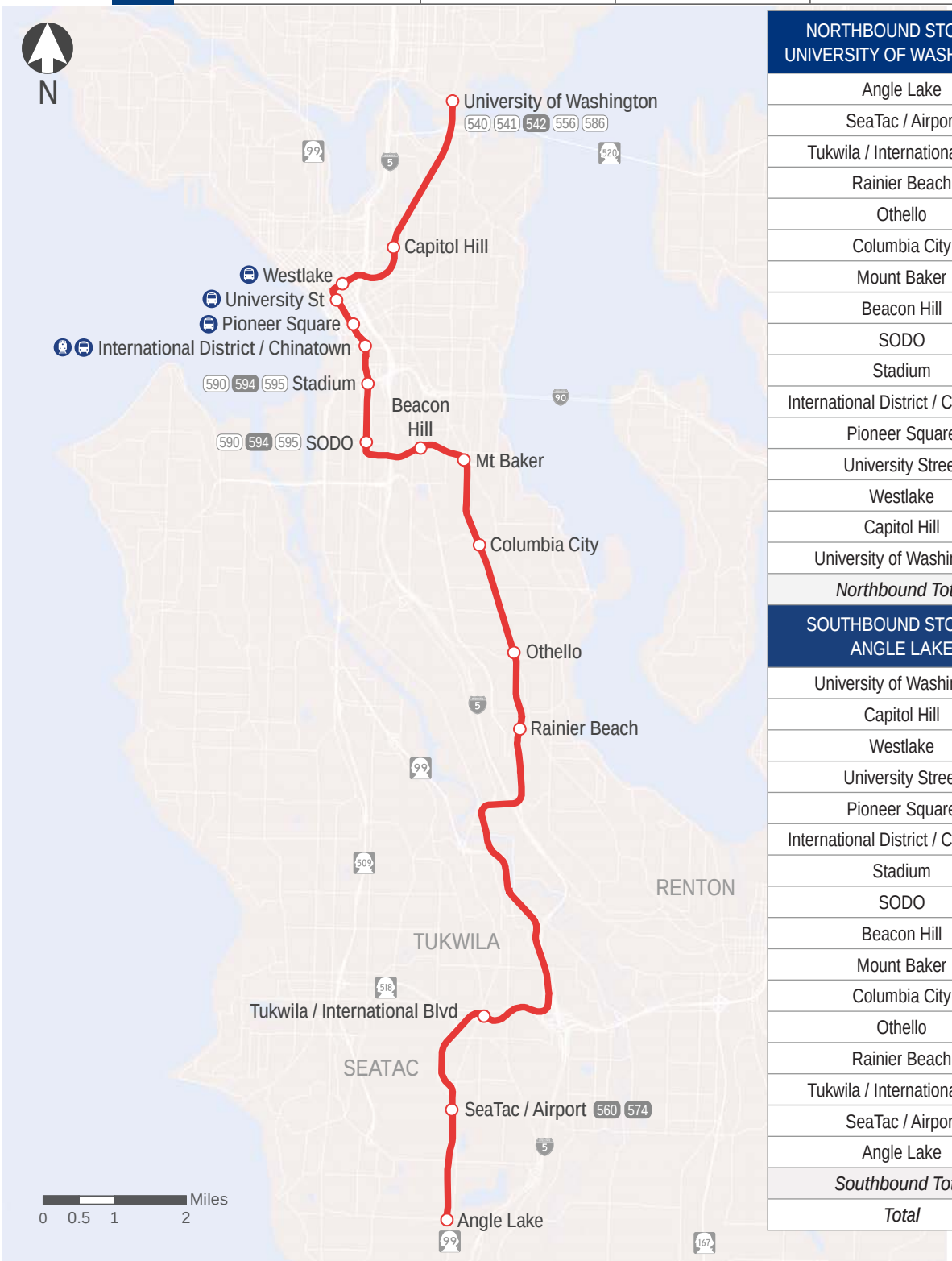
Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Eastbound Average Trip Ridership & Maximum Passenger Loads



Link University of Washington - Angle Lake

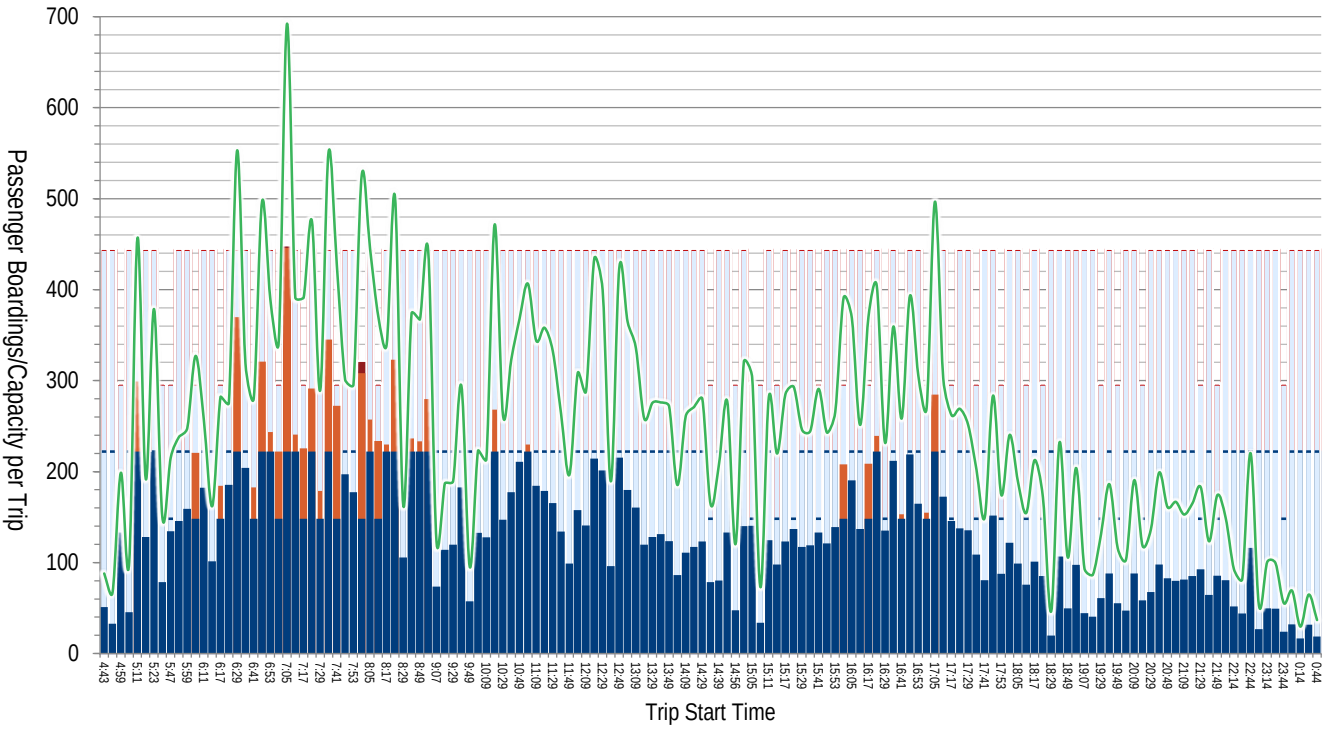
Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	58,739	71,374	75,149	80,733
Average Saturday Boardings	41,343	50,154	56,191	53,068
Average Sunday Boardings	32,655	39,472	41,125	43,146
Annual Boardings	19,011,368	23,022,263	24,470,257	



NORTHBOUND STOPS to UNIVERSITY OF WASHINGTON	Average Weekday	
	Ons	Offs
Angle Lake	3,395	0
SeaTac / Airport	5,175	451
Tukwila / International Blvd	2,392	426
Rainier Beach	1,722	405
Othello	2,299	530
Columbia City	2,295	497
Mount Baker	1,683	812
Beacon Hill	2,118	867
SODO	1,682	765
Stadium	964	775
International District / Chinatown	4,323	2,462
Pioneer Square	2,173	2,708
University Street	2,527	3,618
Westlake	4,361	7,594
Capitol Hill	1,956	7,154
University of Washington	0	10,003
Northbound Total	*39,066*	*39,066*

SOUTHBOUND STOPS to ANGLE LAKE	Average Weekday	
	Ons	Offs
University of Washington	11,010	0
Capitol Hill	6,365	2,475
Westlake	8,695	4,033
University Street	3,795	2,450
Pioneer Square	2,512	2,174
International District / Chinatown	2,938	4,936
Stadium	874	1,385
SODO	889	1,608
Beacon Hill	1,000	2,686
Mount Baker	1,062	1,733
Columbia City	574	2,413
Othello	604	2,418
Rainier Beach	401	1,693
Tukwila / International Blvd	498	2,792
SeaTac / Airport	450	5,233
Angle Lake	0	3,639
Southbound Total	*41,667*	*41,667*
Total	*80,733*	*80,733*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

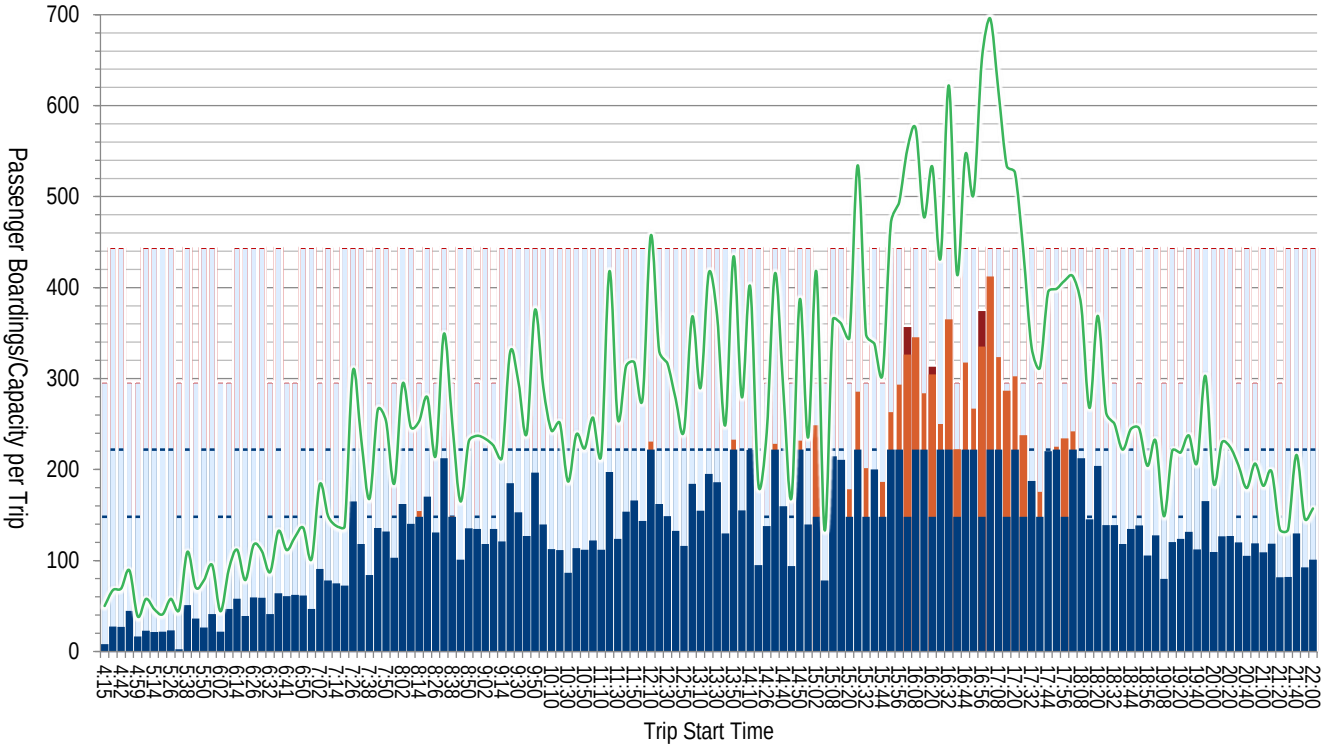


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

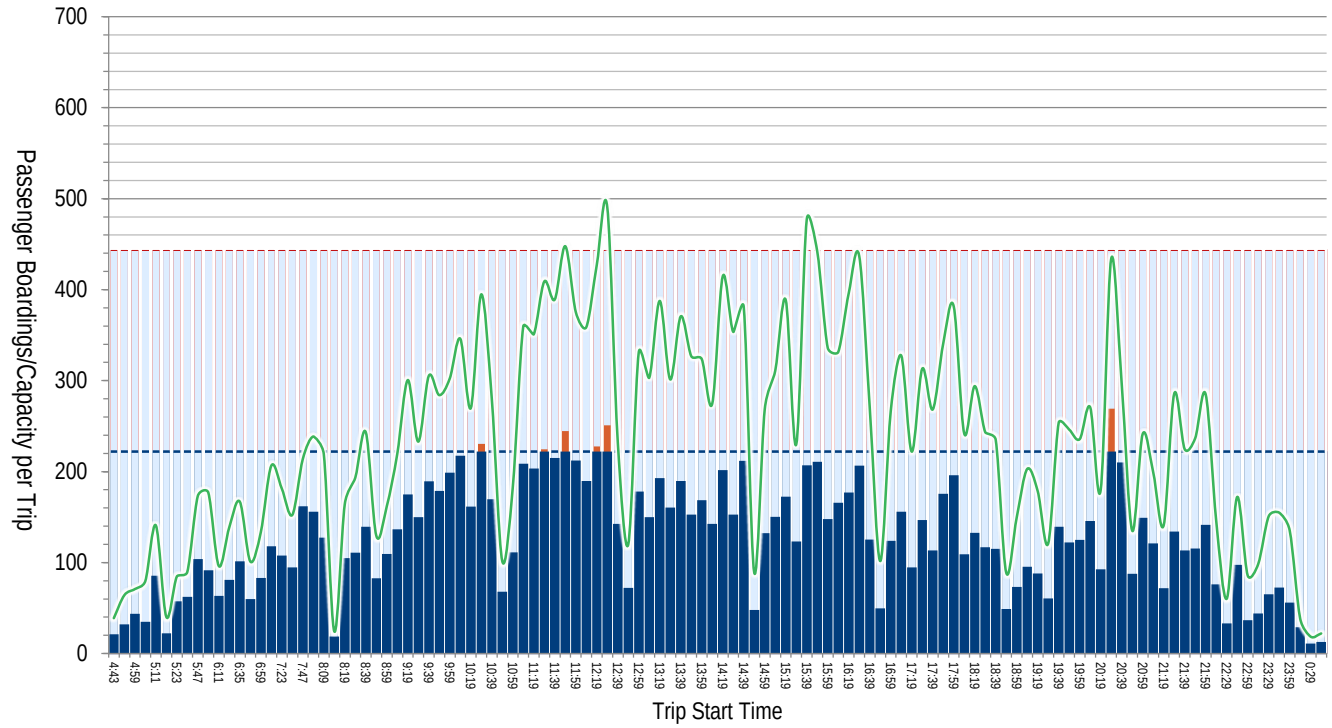
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday

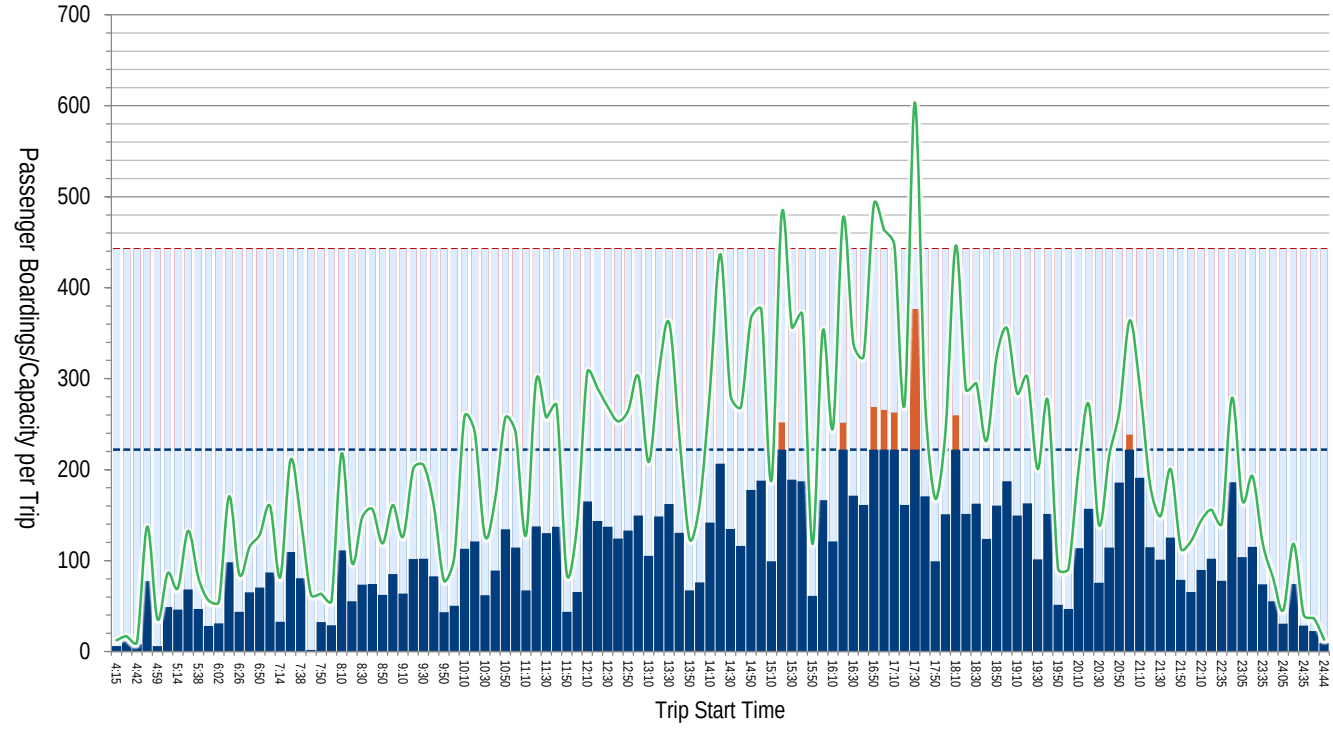


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

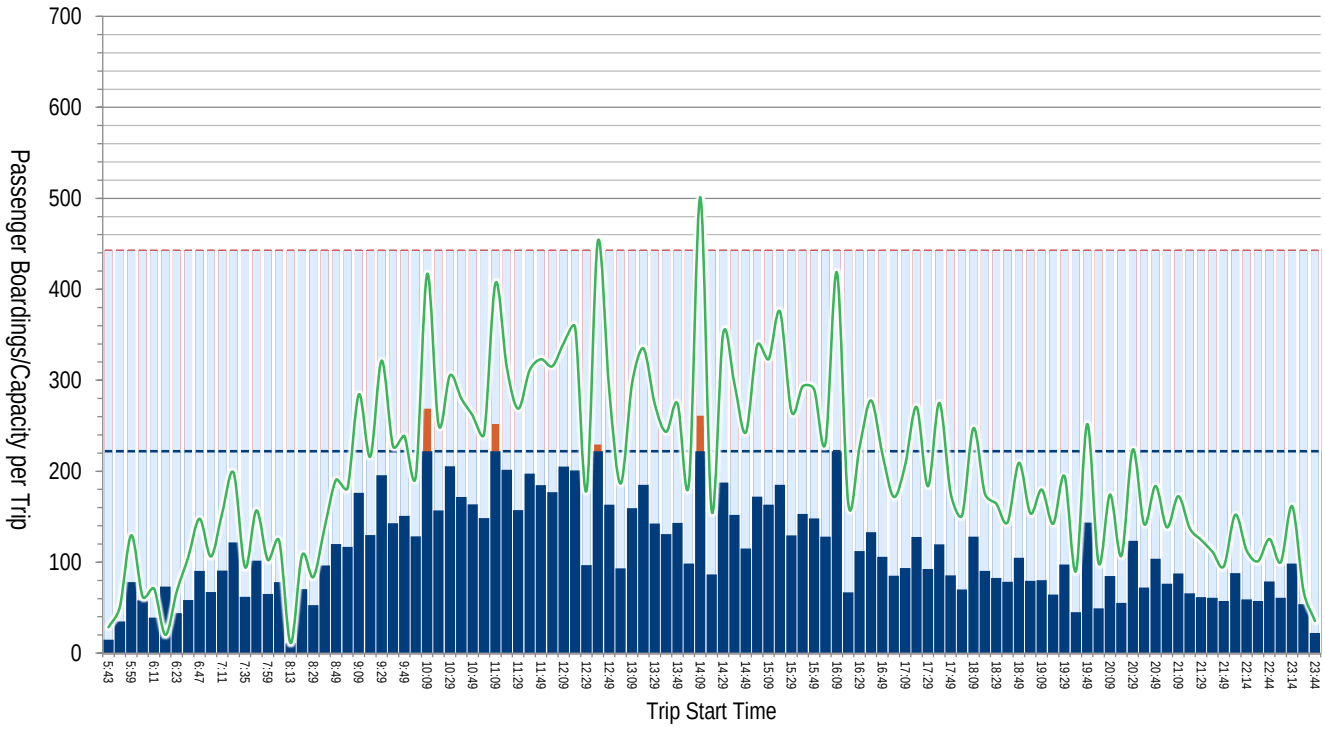
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday

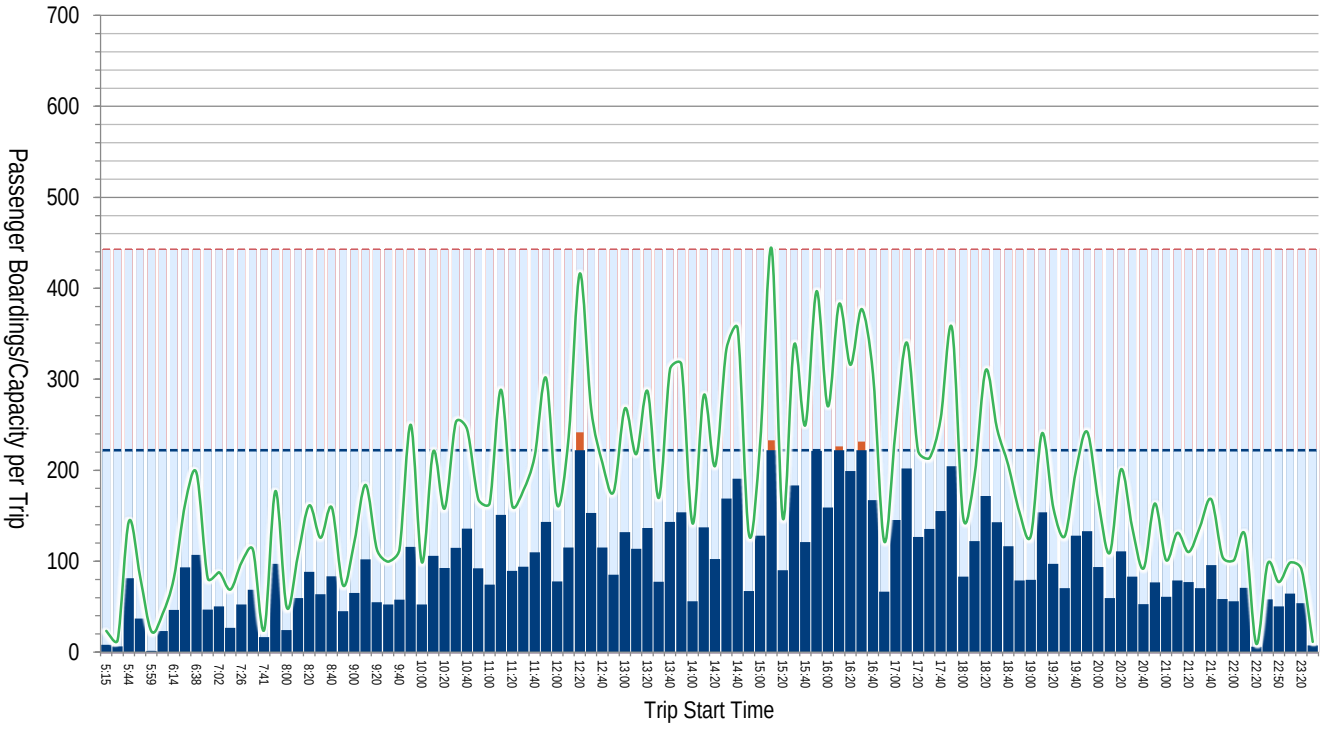


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

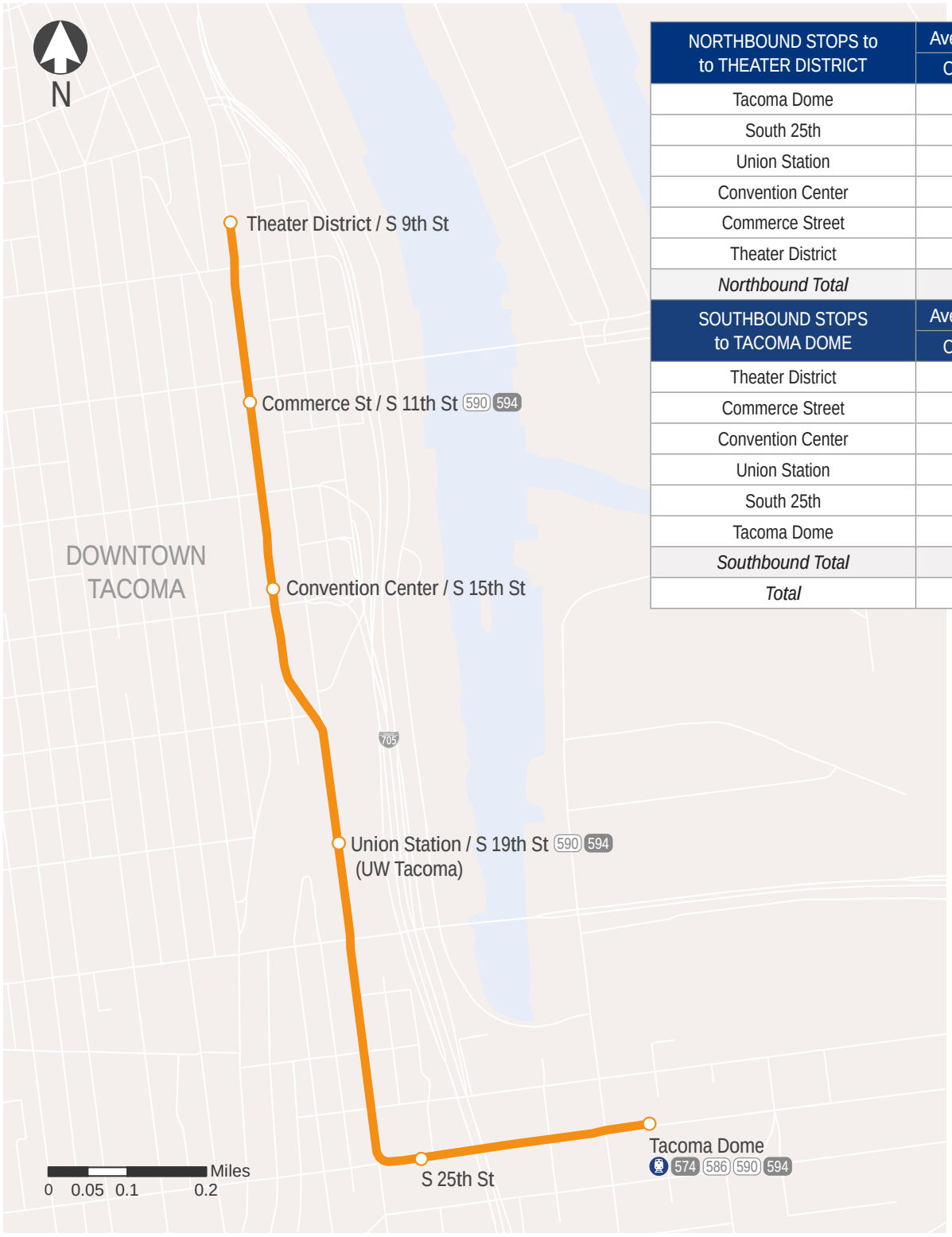
Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



Tacoma Link — Downtown Tacoma - Tacoma Dome

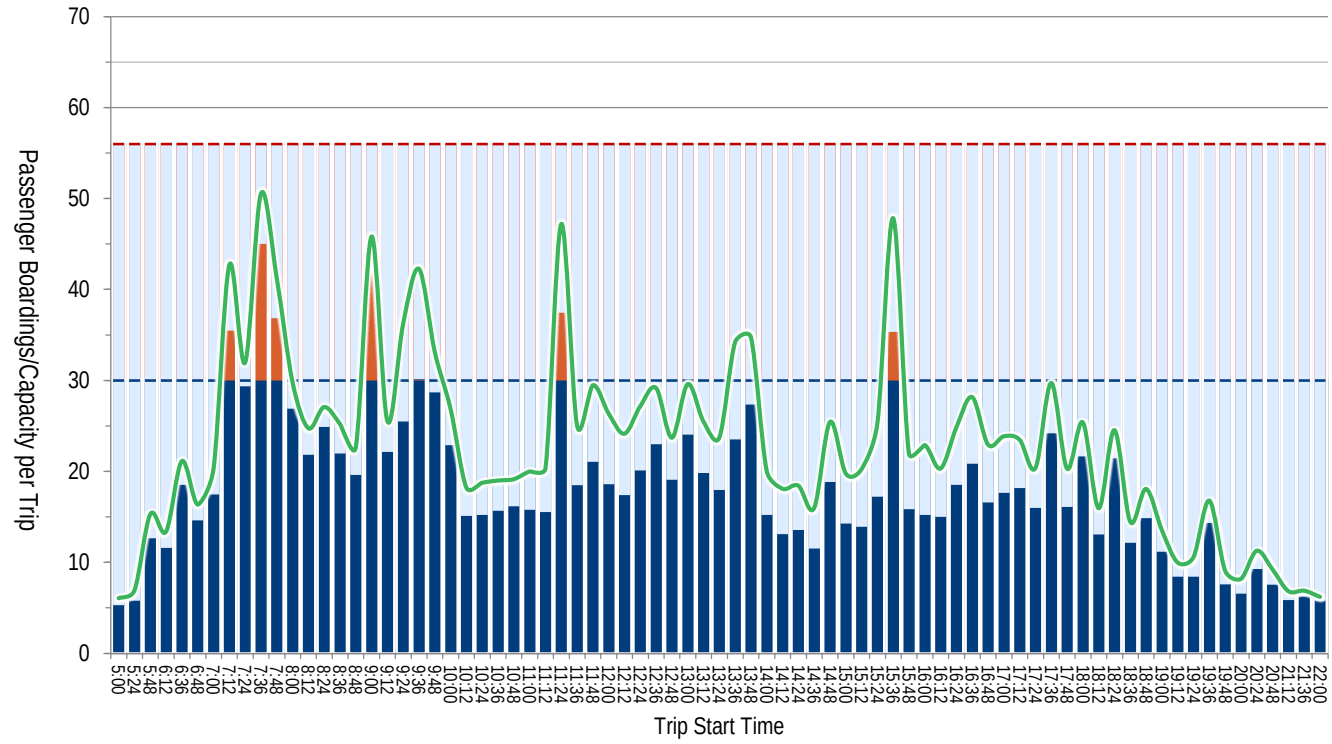
Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	3,182	3,239	3,023	3,350
Average Saturday Boardings	1,718	2,150	1,670	2,112
Average Sunday Boardings	653	647	689	585
Annual Boardings	938,315	972,998	897,642	



NORTHBOUND STOPS to to THEATER DISTRICT	Average Weekday	
	Ons	Offs
Tacoma Dome	1,090	0
South 25th	222	86
Union Station	284	470
Convention Center	58	199
Commerce Street	90	440
Theater District	0	548
Northbound Total	*1,745*	*1,745*

SOUTHBOUND STOPS to TACOMA DOME	Average Weekday	
	Ons	Offs
Theater District	459	0
Commerce Street	333	21
Convention Center	204	28
Union Station	445	268
South 25th	165	294
Tacoma Dome	0	995
Southbound Total	*1,605*	*1,605*
Total	*3,350*	*3,350*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

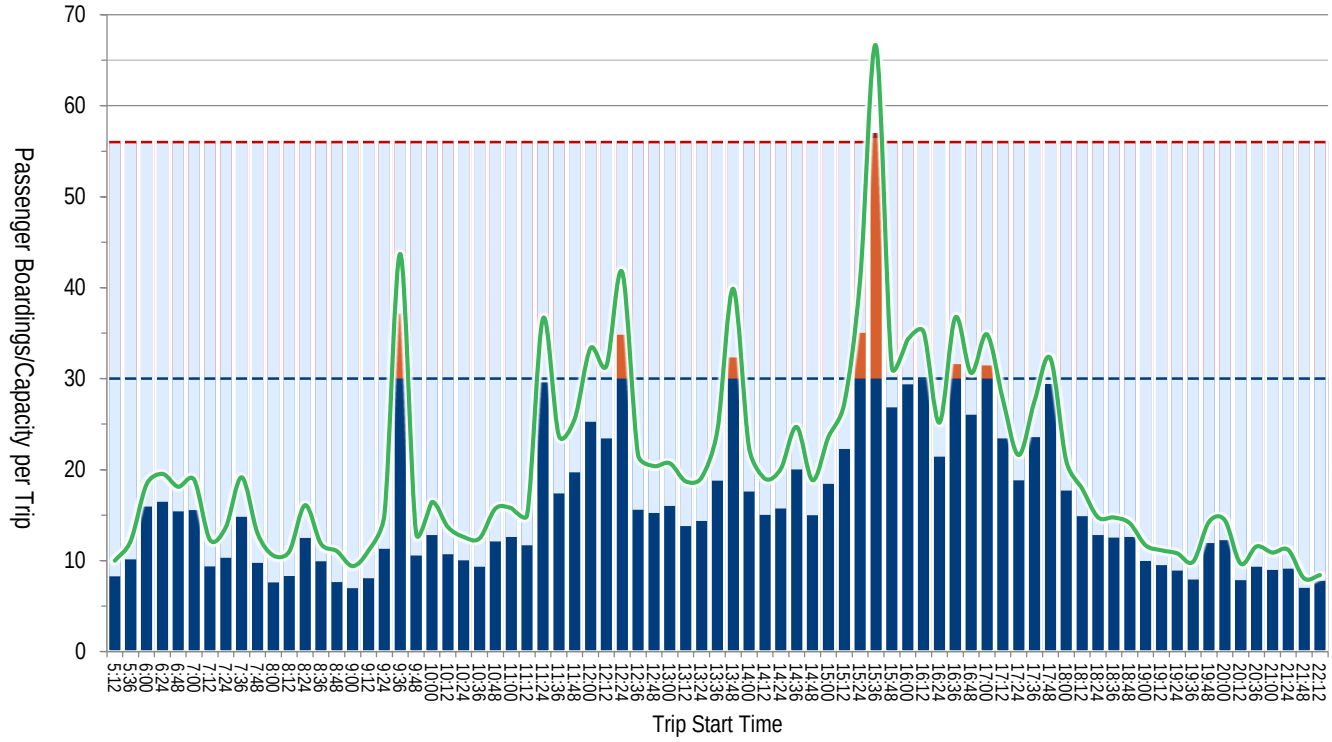


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

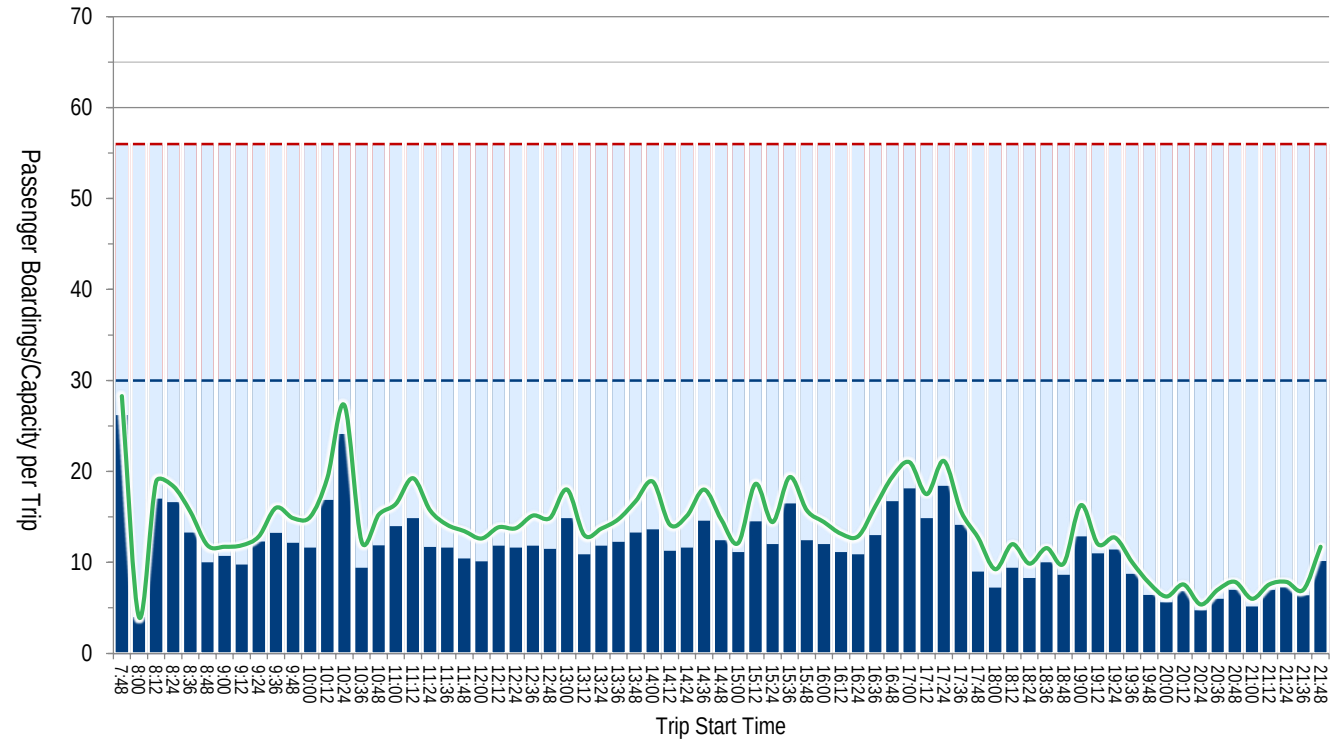
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday

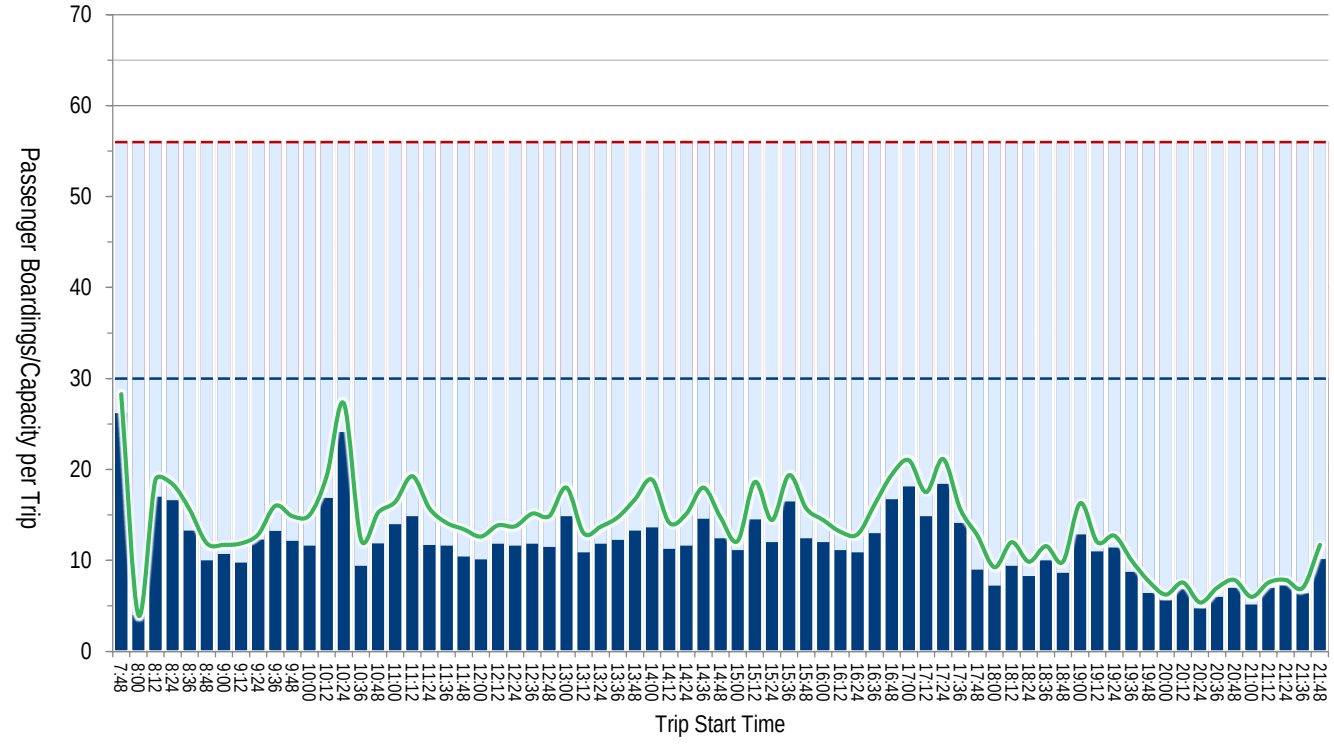


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

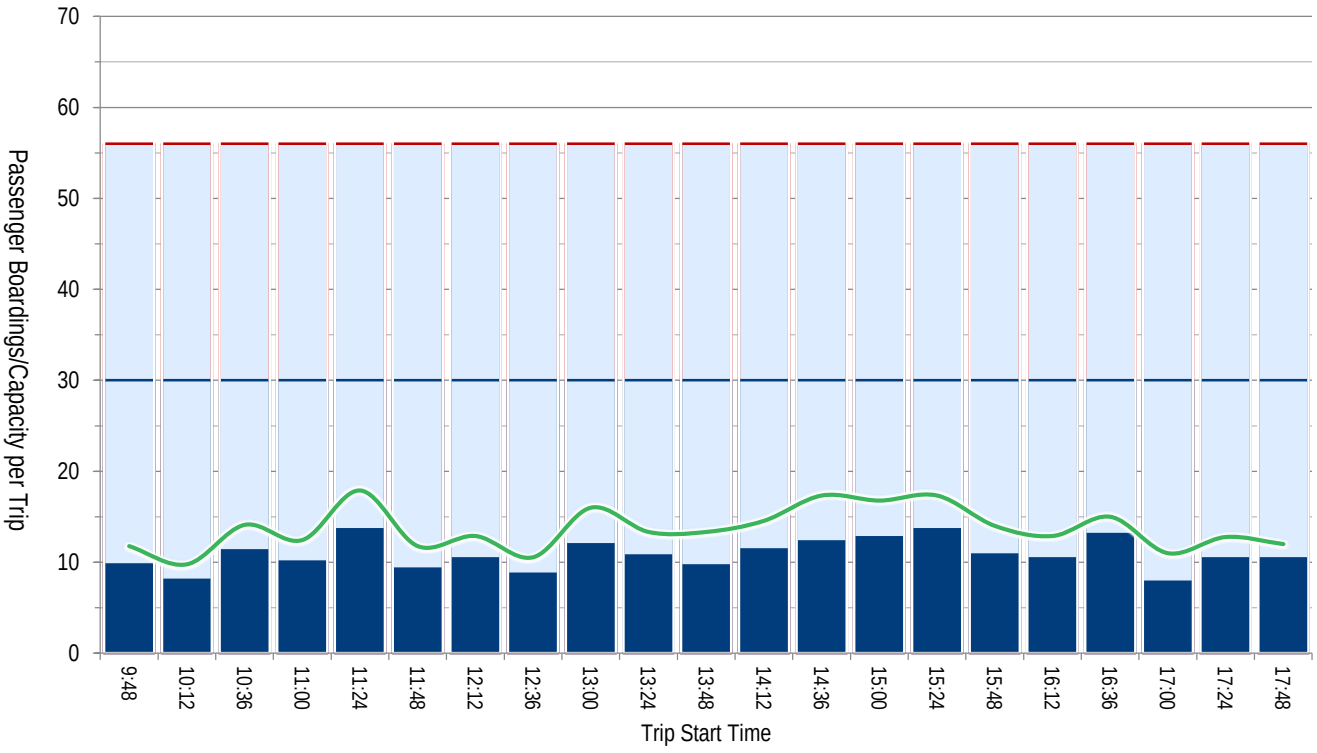
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday

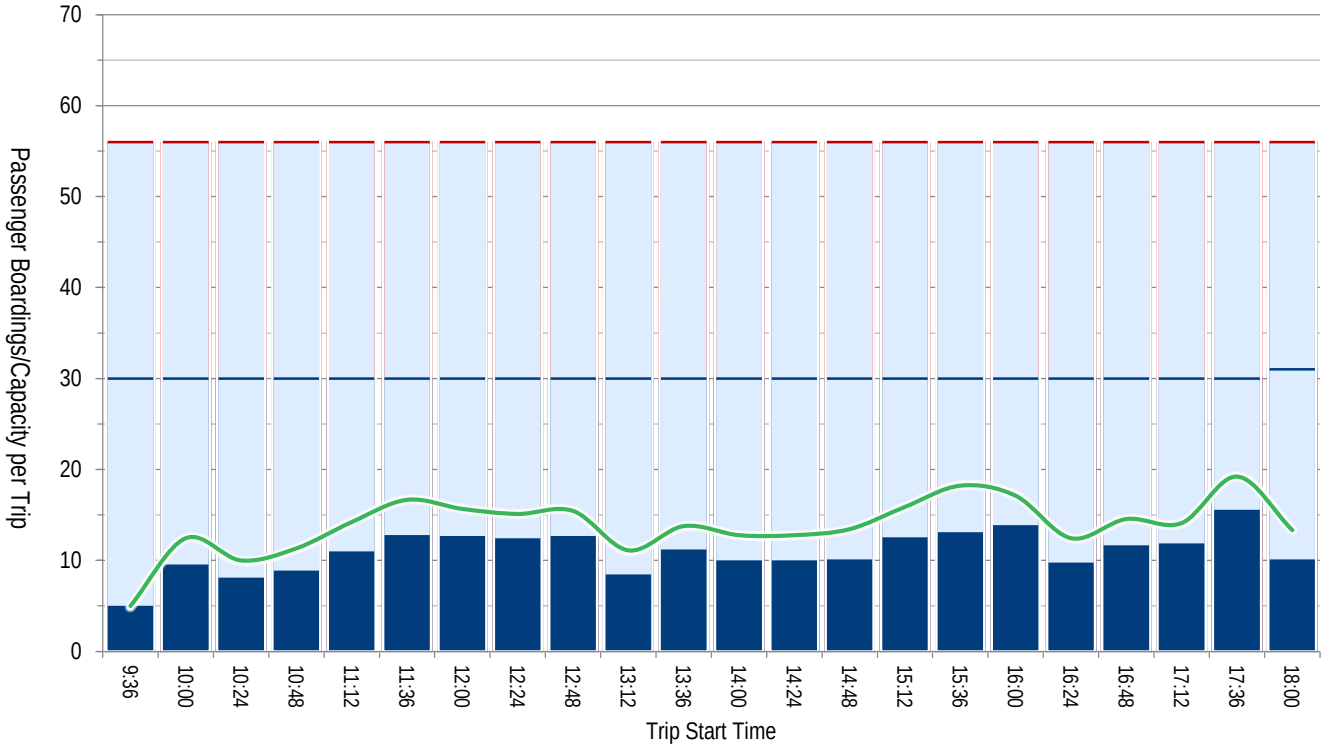


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

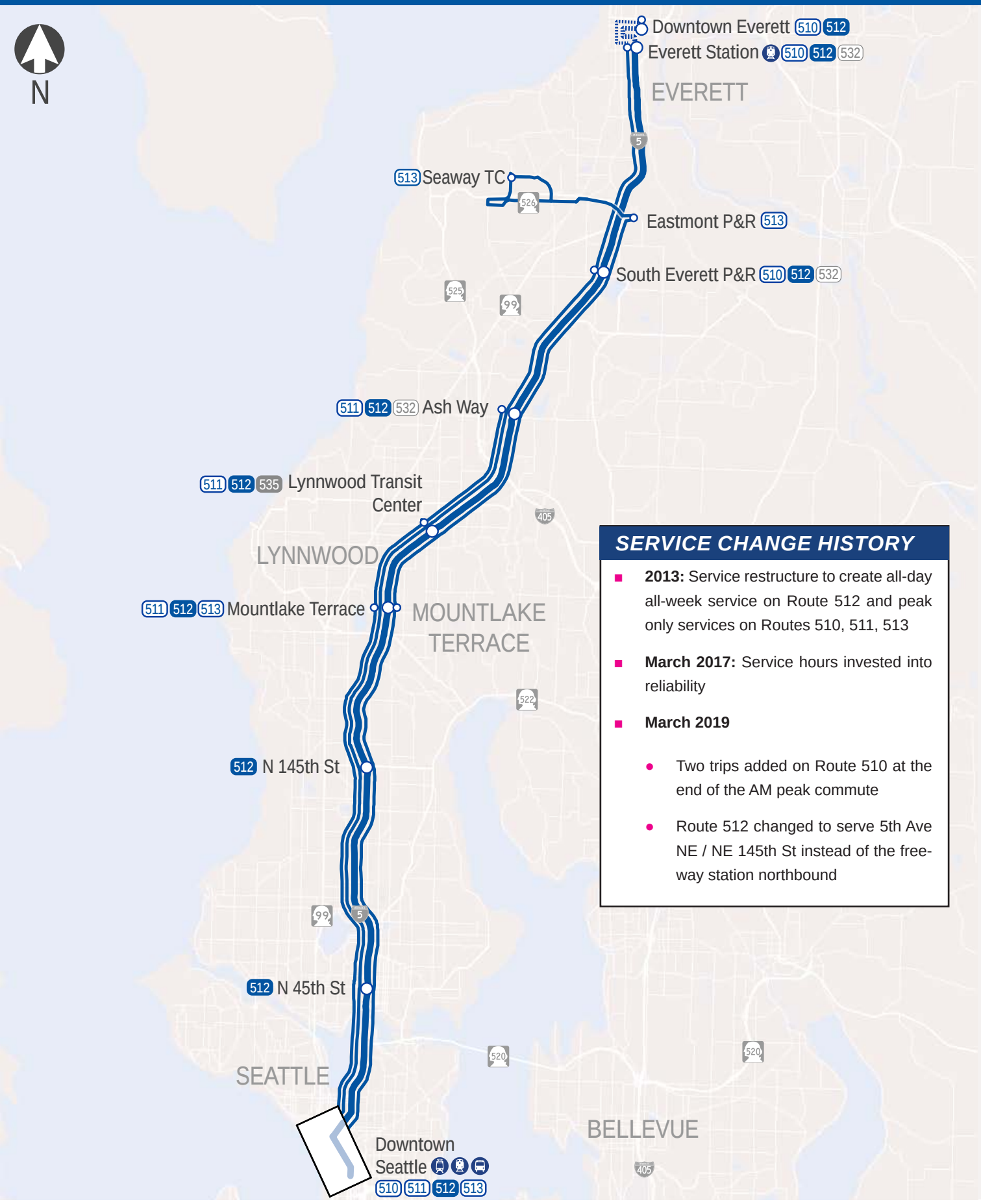
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



I-5 North



SERVICE CHANGE HISTORY

- **2013:** Service restructure to create all-day all-week service on Route 512 and peak only services on Routes 510, 511, 513
- **March 2017:** Service hours invested into reliability
- **March 2019**
 - Two trips added on Route 510 at the end of the AM peak commute
 - Route 512 changed to serve 5th Ave NE / NE 145th St instead of the free-way station northbound

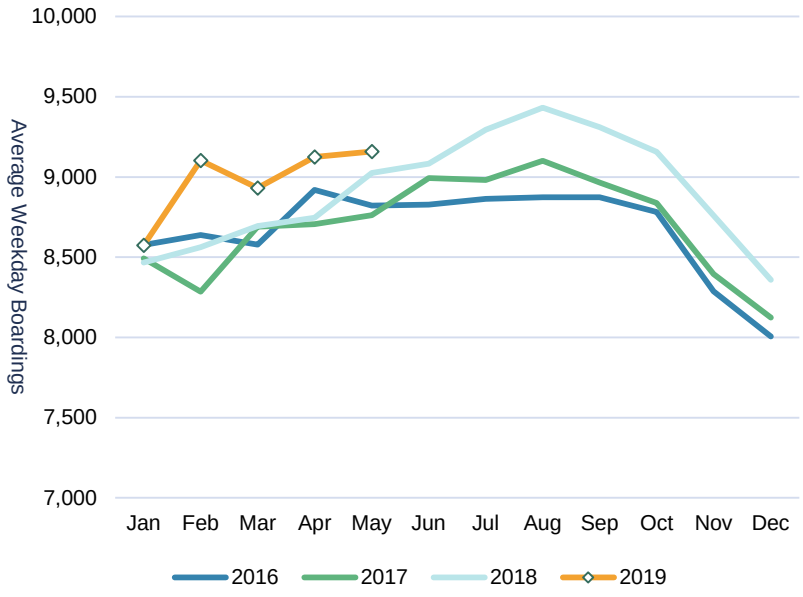
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span
Weekday	North	510	10-15 (6p) 20
		511	15
		512	15 (6a) 10 (6p) 10-15 (7p) 20-30
		513	20-30
	South	510	20 (4a) 10-15 (5a) 20 (6a)
		511	20 (4a) 15 (5a)
		512	15 (6a) 20-30 (7p)
		513	30 (5a) 15 (6a) 20

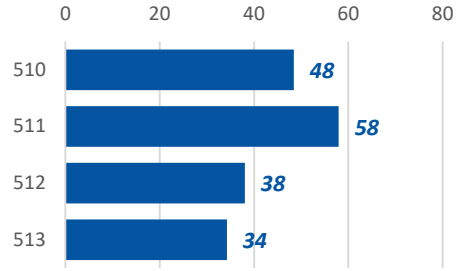
	Direction	Route	Frequency & Span
Sat	North	512	30 (5a) 20 (9a) 15 (1p) 20 (4p) 30 (6p)
	South	512	30 (5a) 20 (8a) 15 (12p) 20 (3p) 30 (6p)

	Direction	Route	Frequency & Span
Sun	North	512	30 (5a)
	South	512	30 (5a)

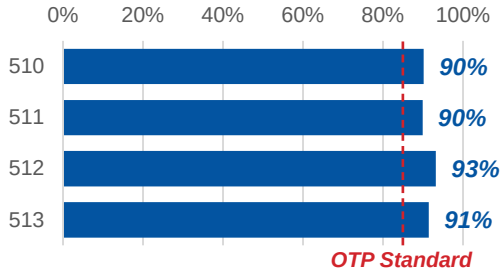
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

- Routes 510/512 - Evaluate AM peak passenger loads after two new trips added on Route 510
- All routes - Update schedules to better reflect new traffic conditions

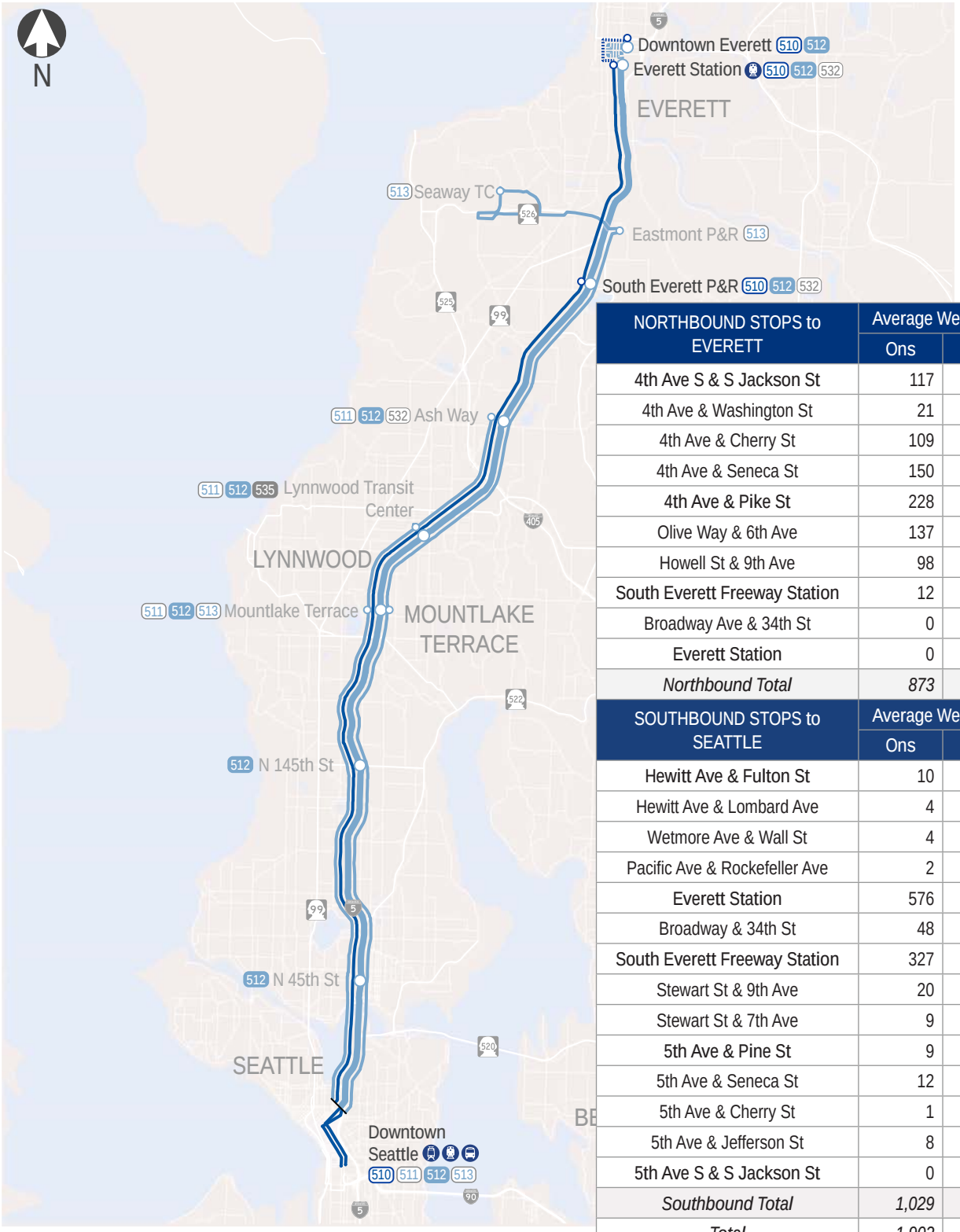
LONG TERM CORRIDOR OUTLOOK

- **2021** - Northgate Link Extension opens
- **2024** - Lynnwood Link Extension opens
- **2036** - Everett Link Extension scheduled to open

I-5 North

Route 510 Everett - Seattle

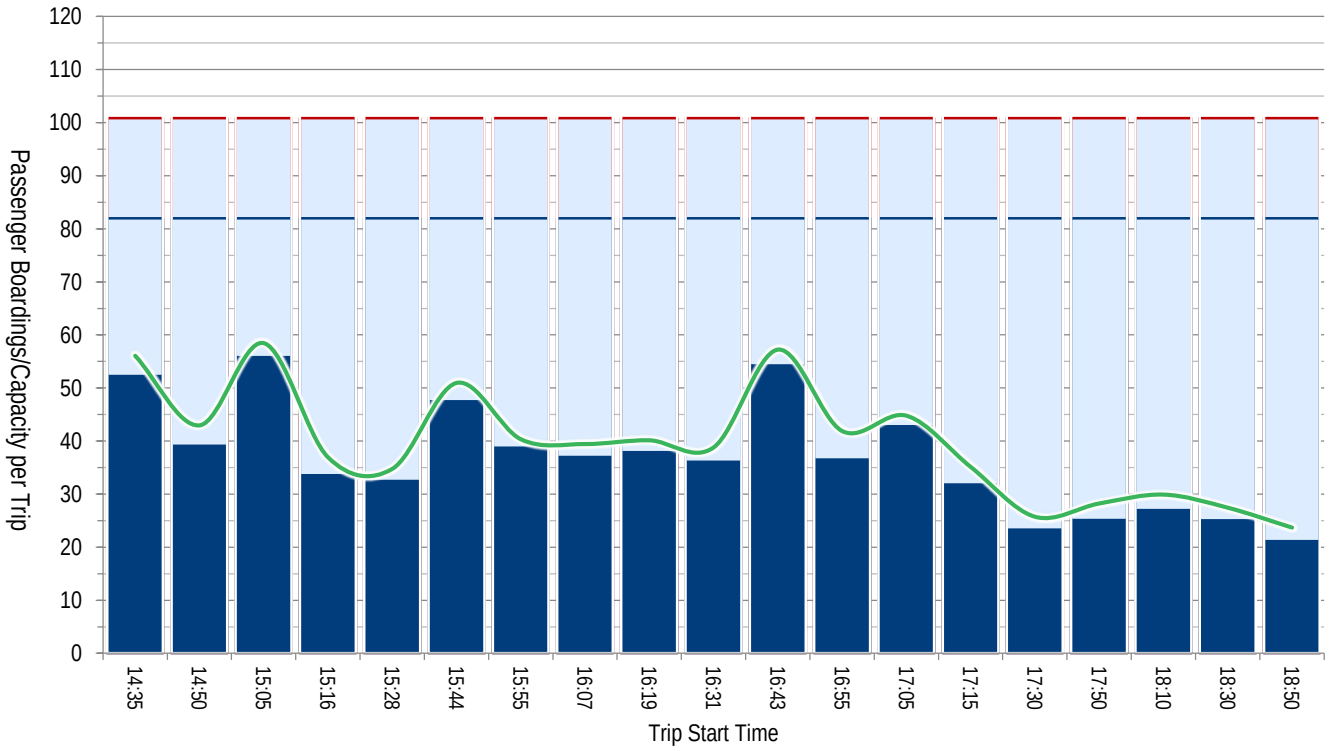
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	1,913	1,983	1,999	1,902
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	488,401	503,600	509,788	



NORTHBOUND STOPS to EVERETT	Average Weekday	
	Ons	Offs
4th Ave S & S Jackson St	117	0
4th Ave & Washington St	21	0
4th Ave & Cherry St	109	2
4th Ave & Seneca St	150	4
4th Ave & Pike St	228	9
Olive Way & 6th Ave	137	5
Howell St & 9th Ave	98	4
South Everett Freeway Station	12	345
Broadway Ave & 34th St	0	18
Everett Station	0	486
Northbound Total	*873*	*873*

SOUTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Hewitt Ave & Fulton St	10	0
Hewitt Ave & Lombard Ave	4	0
Wetmore Ave & Wall St	4	0
Pacific Ave & Rockefeller Ave	2	0
Everett Station	576	2
Broadway & 34th St	48	2
South Everett Freeway Station	327	4
Stewart St & 9th Ave	20	228
Stewart St & 7th Ave	9	144
5th Ave & Pine St	9	211
5th Ave & Seneca St	12	152
5th Ave & Cherry St	1	126
5th Ave & Jefferson St	8	59
5th Ave S & S Jackson St	0	101
Southbound Total	*1,029*	*1,029*
Total	*1,902*	*1,902*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

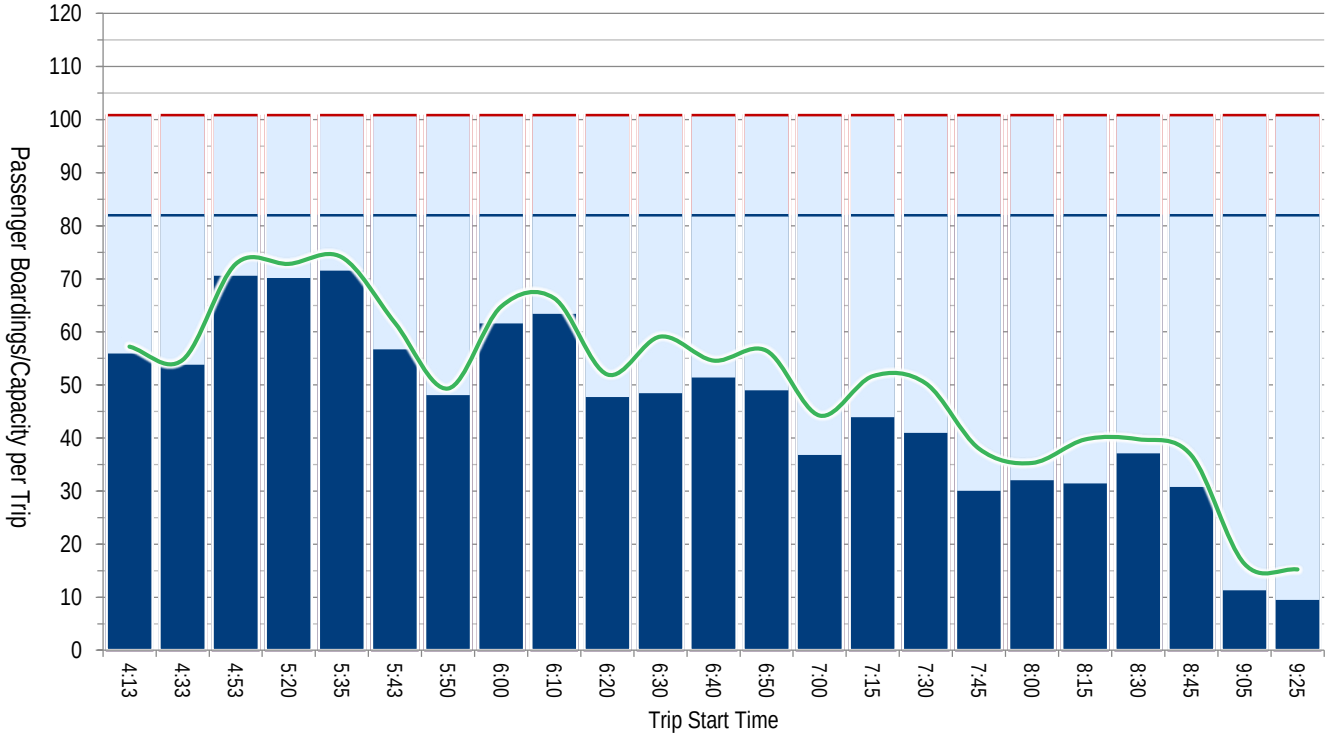


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

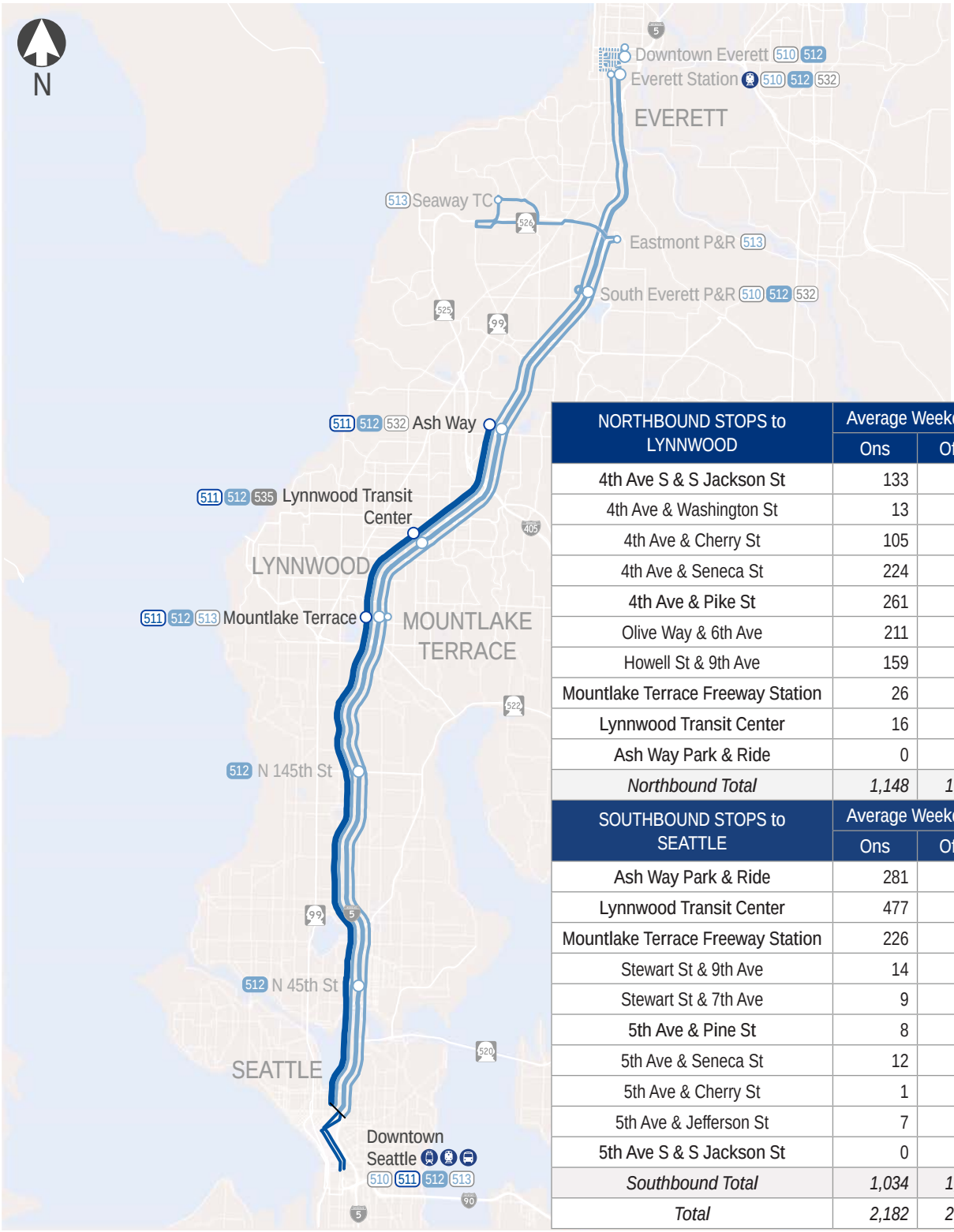
Weekday Southbound Average Trip Ridership & Maximum Passenger Loads



I-5 North

Route 511 Ash Way - Seattle

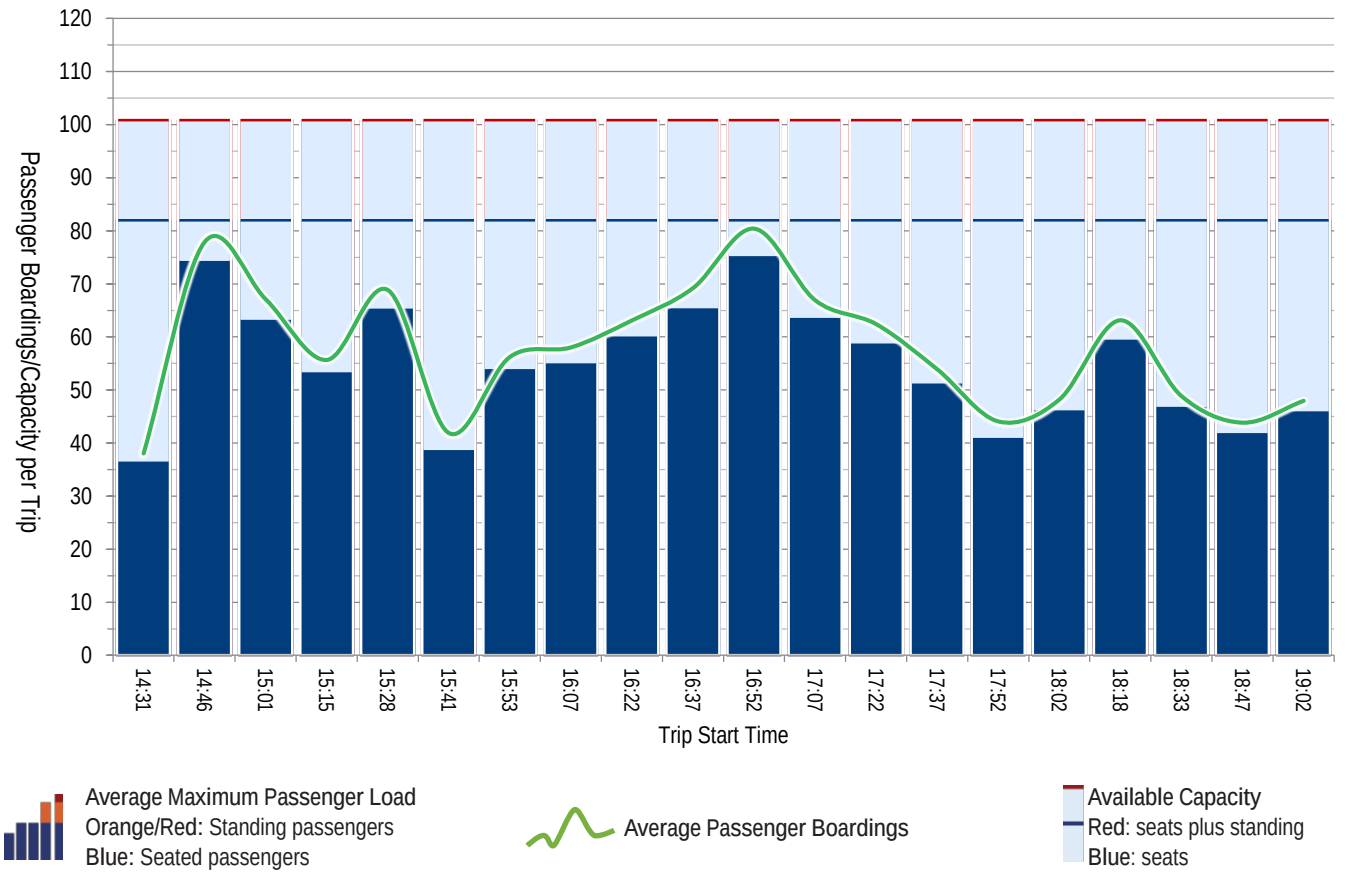
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	2,025	2,062	2,055	2,182
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	516,248	523,733	524,046	



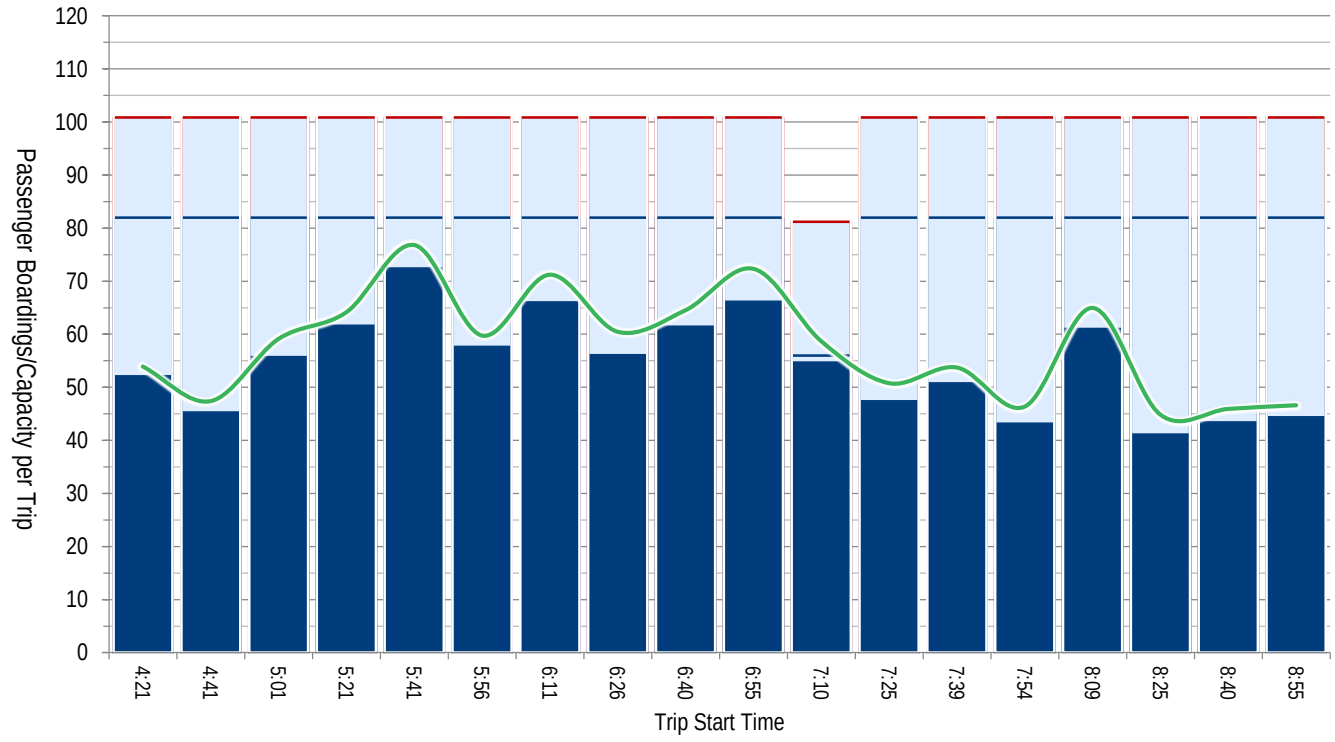
NORTHBOUND STOPS to LYNNWOOD	Average Weekday	
	Ons	Offs
4th Ave S & S Jackson St	133	0
4th Ave & Washington St	13	1
4th Ave & Cherry St	105	2
4th Ave & Seneca St	224	4
4th Ave & Pike St	261	9
Olive Way & 6th Ave	211	4
Howell St & 9th Ave	159	4
Mountlake Terrace Freeway Station	26	255
Lynnwood Transit Center	16	580
Ash Way Park & Ride	0	290
Northbound Total	*1,148*	*1,148*

SOUTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Ash Way Park & Ride	281	0
Lynnwood Transit Center	477	3
Mountlake Terrace Freeway Station	226	9
Stewart St & 9th Ave	14	252
Stewart St & 7th Ave	9	160
5th Ave & Pine St	8	195
5th Ave & Seneca St	12	172
5th Ave & Cherry St	1	127
5th Ave & Jefferson St	7	37
5th Ave S & S Jackson St	0	79
Southbound Total	*1,034*	*1,034*
Total	*2,182*	*2,182*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



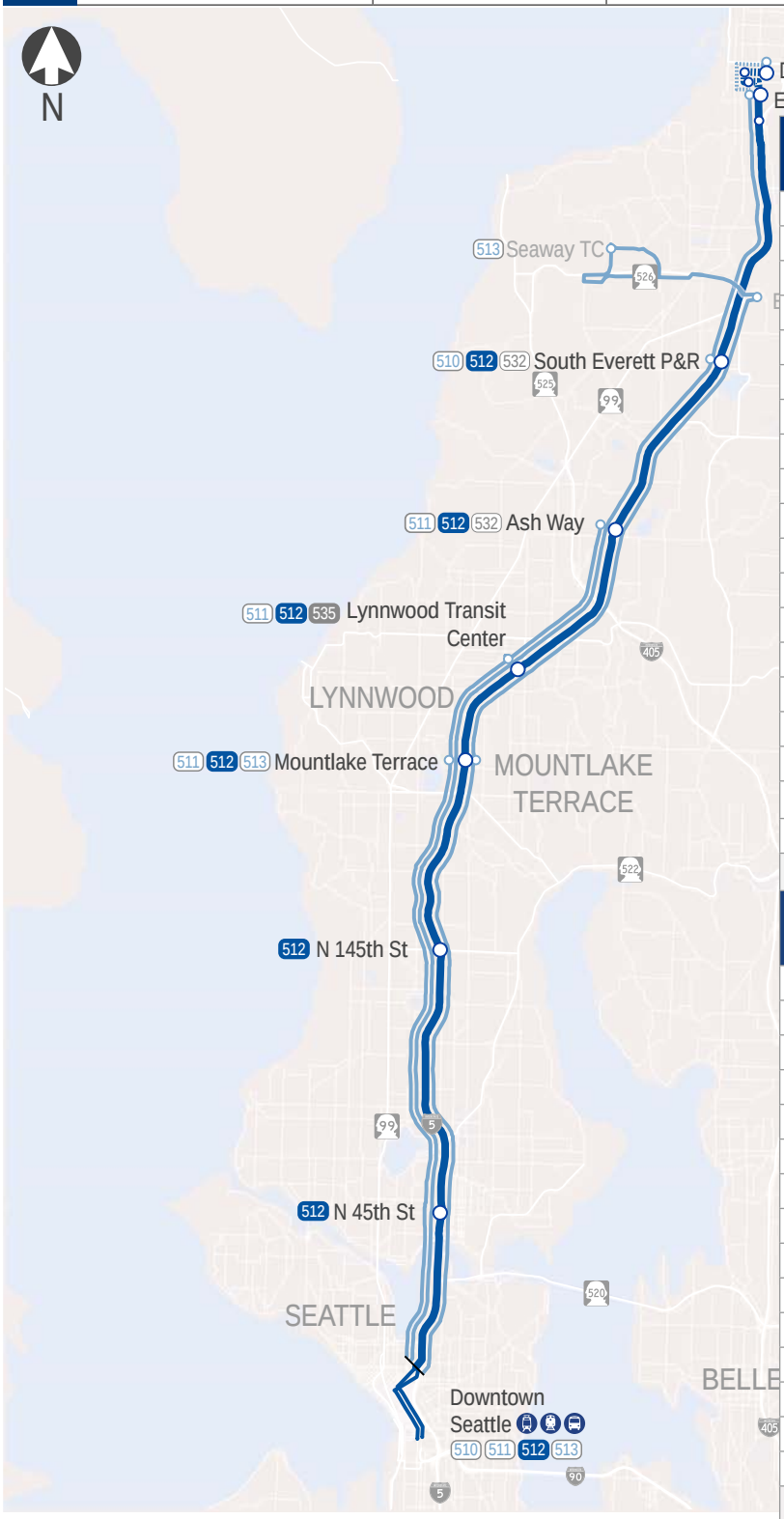
Weekday Southbound Average Trip Ridership & Maximum Passenger Loads



I-5 North

Route 512 Everett - Seattle

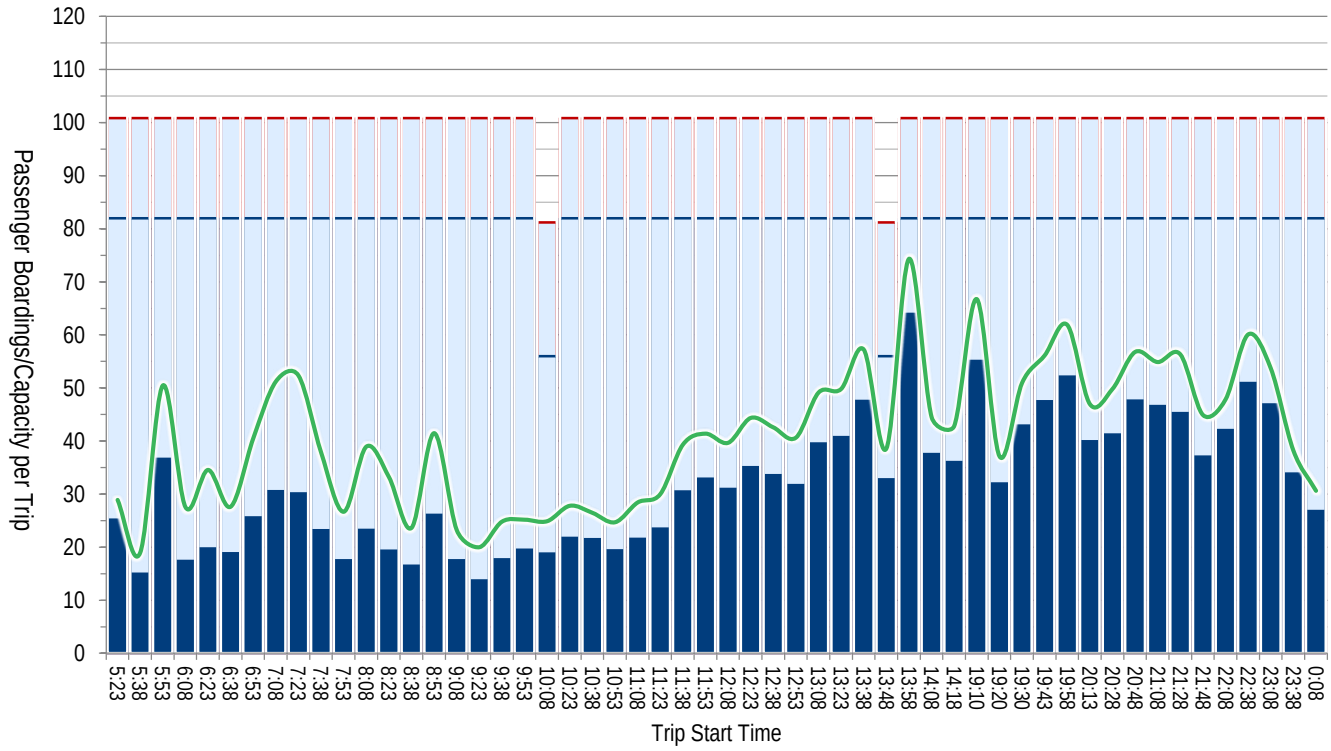
Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	4,064	4,024	4,181	4,384
Average Saturday Boardings	4,145	4,233	4,458	4,750
Average Sunday Boardings	2,847	2,903	3,037	3,281
Annual Boardings	1,424,904	1,421,457	1,474,035	



NORTHBOUND STOPS to EVERETT	Average Weekday	
	Ons	Offs
4th Ave S & S Jackson St	526	0
4th Ave & Washington St	49	1
4th Ave & Cherry St	147	60
4th Ave & Seneca St	221	40
4th Ave & Pike St	504	35
Olive Way & 6th Ave	301	28
Howell St & 9th Ave	148	53
I-5 & NE 45th St Freeway Station	279	201
5th Ave NE & NE 145th St	38	72
Mountlake Terrace Freeway Station	27	186
Lynnwood Transit Center	66	663
Ash Way Park & Ride	32	354
South Everett Freeway Station	19	183
Broadway Ave & 34th St	2	40
Everett Station	4	441
Pacific Ave & Rockefeller Ave	0	1
Wetmore Ave & Wall St	0	3
Hewitt Ave & Lombard Ave	0	1
Hewitt Ave & Virginia Ave	0	3
Northbound Total	*2,363*	*2,363*

SOUTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Everett Station	434	0
Broadway & 34th St	59	9
South Everett Freeway Station	162	21
Ash Way Park & Ride	327	36
Lynnwood Transit Center	609	79
Mountlake Terrace Freeway Station	134	32
I-5 & NE 145th St Freeway Station	47	41
I-5 & NE 45th St Freeway Station	91	287
Stewart St & 9th Ave	26	289
Stewart St & 7th Ave	18	160
5th Ave & Pine St	34	461
5th Ave & Seneca St	26	121
5th Ave & Cherry St	22	87
5th Ave & Jefferson St	31	74
5th Ave S & S Jackson St	0	325
Southbound Total	*2,021*	*2,021*
Total	*4,384*	*4,384*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

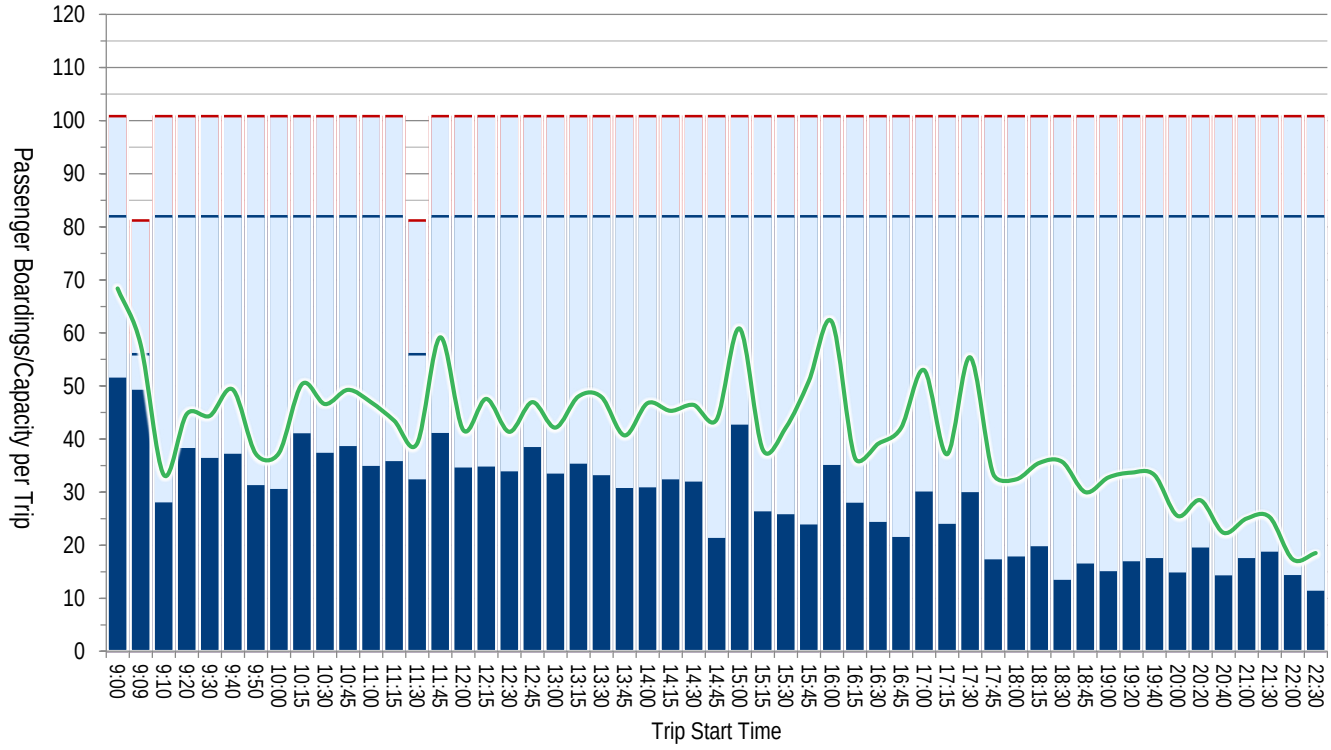


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

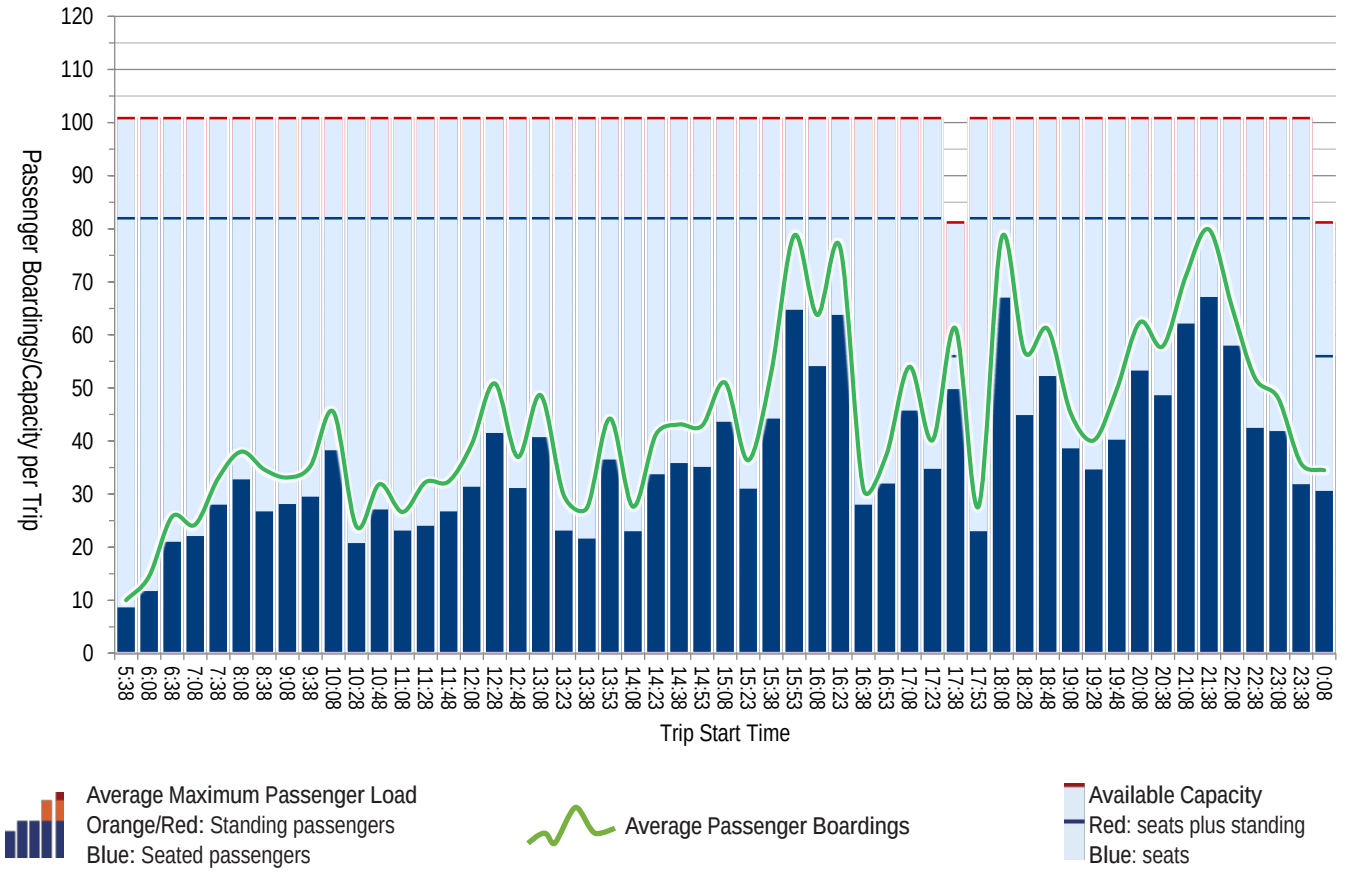
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday

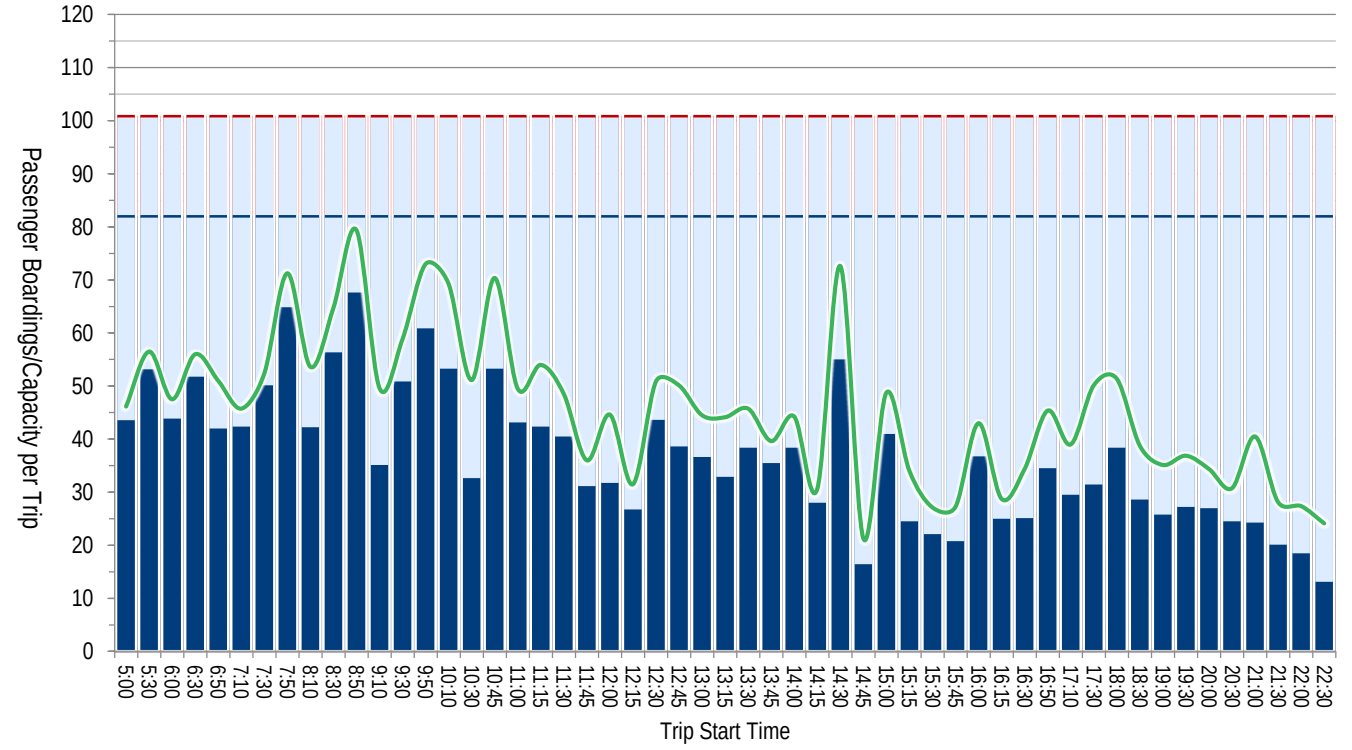


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

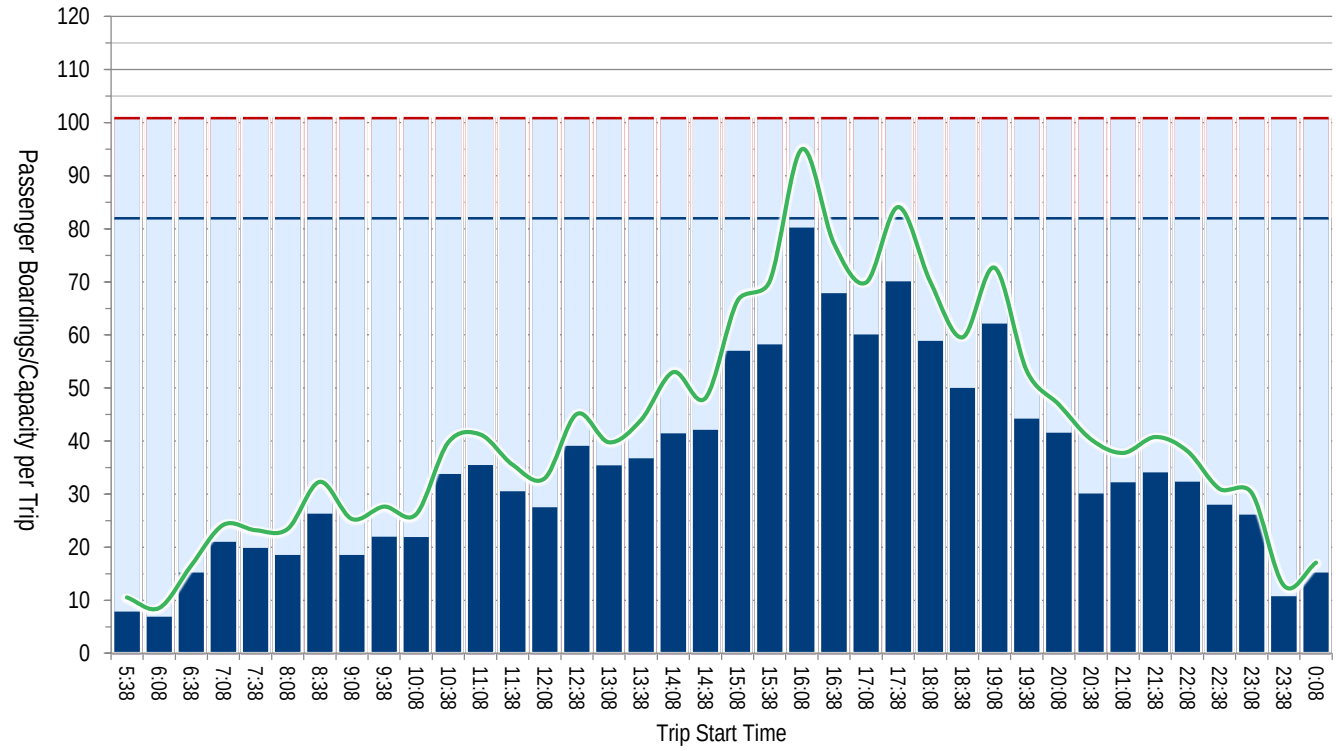
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday

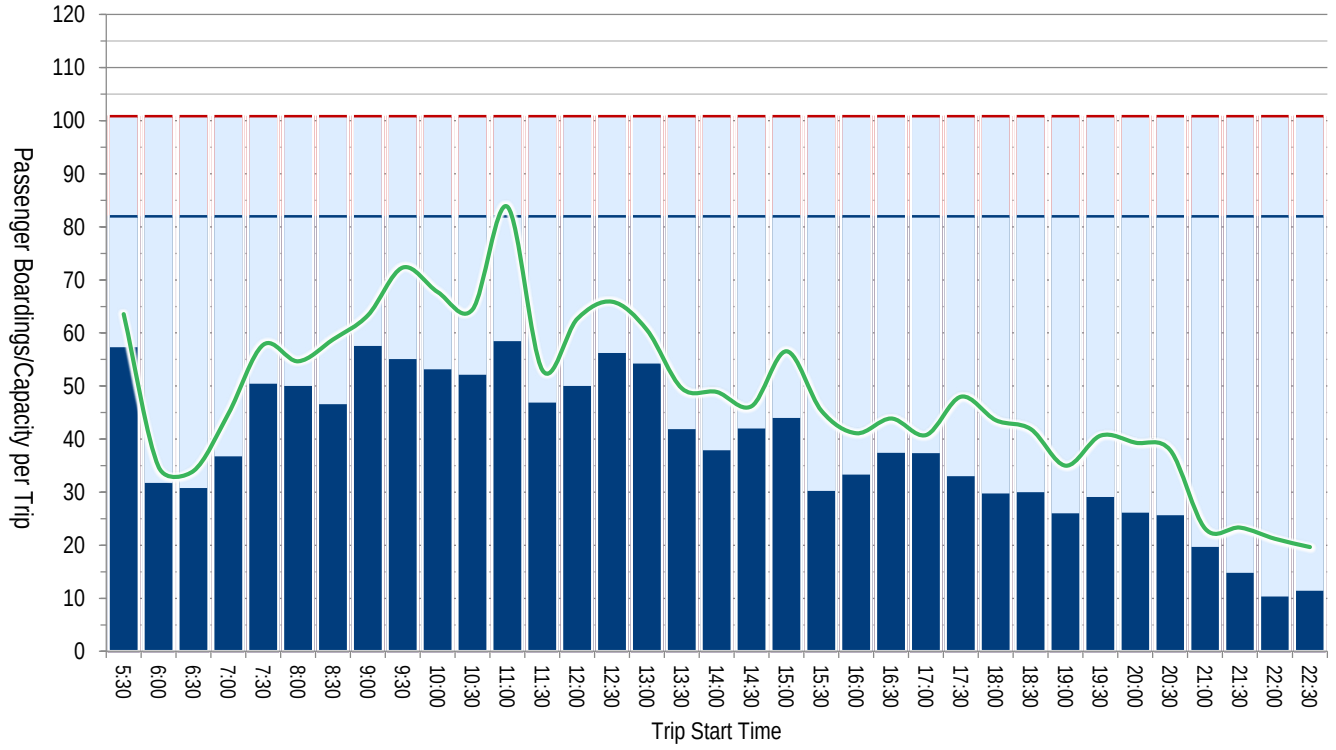


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



I-5 North

Route 513 Seaway TC - Seattle

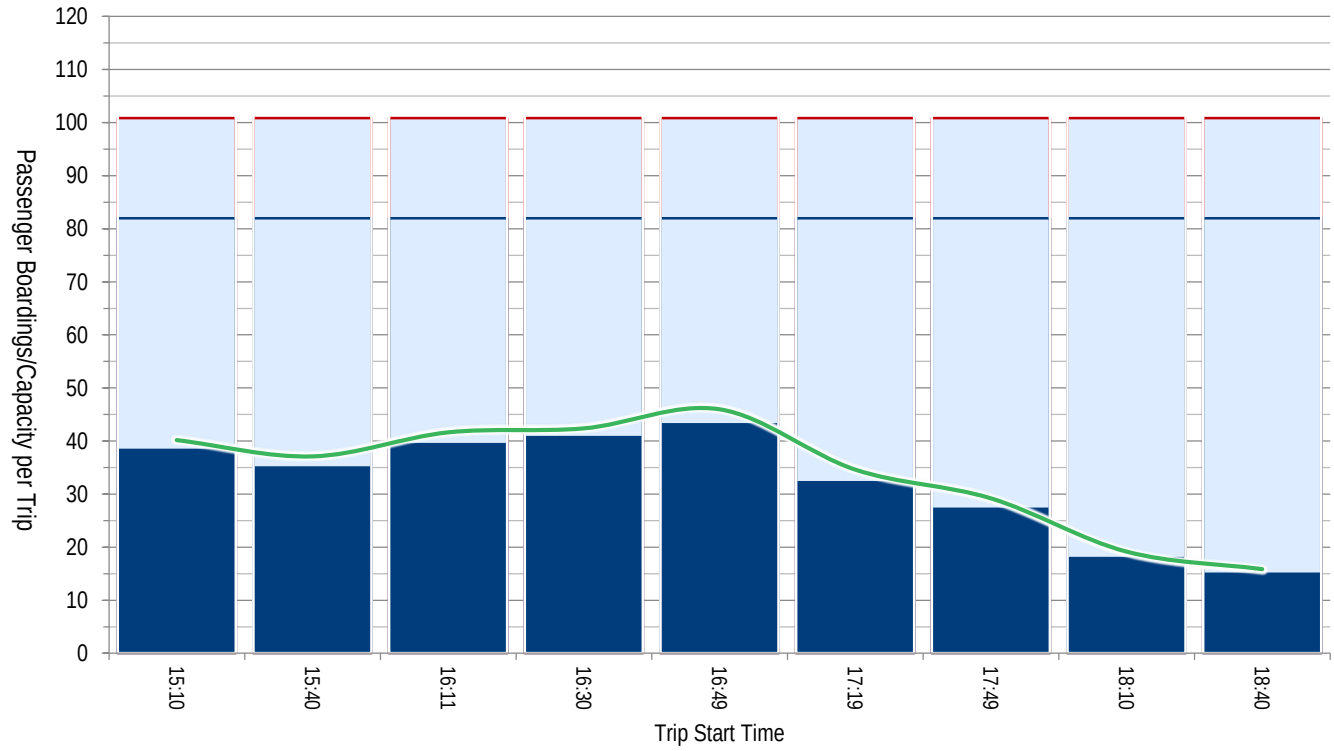
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	670	632	677	674
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	170,936	160,615	172,702	



NORTHBOUND STOPS to EVERETT	Average Weekday	
	Ons	Offs
4th Ave S & S Jackson St	28	0
4th Ave & Washington St	5	0
4th Ave & Cherry St	34	0
4th Ave & Seneca St	58	1
4th Ave & Pike St	57	3
Olive Way & 6th Ave	52	1
Howell St & 9th Ave	43	1
Howell St & Yale Ave	21	2
Mountlake Terrace Freeway Station	6	112
Eastmont Park & Ride	1	150
W Casino Rd & Evergreen Way	0	28
Seaway Transit Center	0	7
Northbound Total	*306*	*306*

SOUTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Seaway Transit Center	8	0
W Casino Rd & Evergreen Way	24	0
Eastmont Park & Ride	161	1
Mountlake Terrace Freeway Station	154	3
Stewart St & 9th Ave	4	89
Stewart St & 7th Ave	3	57
5th Ave & Pine St	4	63
5th Ave & Seneca St	6	68
5th Ave & Cherry St	0	45
5th Ave & Jefferson St	4	14
5th Ave S & S Jackson St	0	27
Southbound Total	*368*	*368*
Total	*674*	*674*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

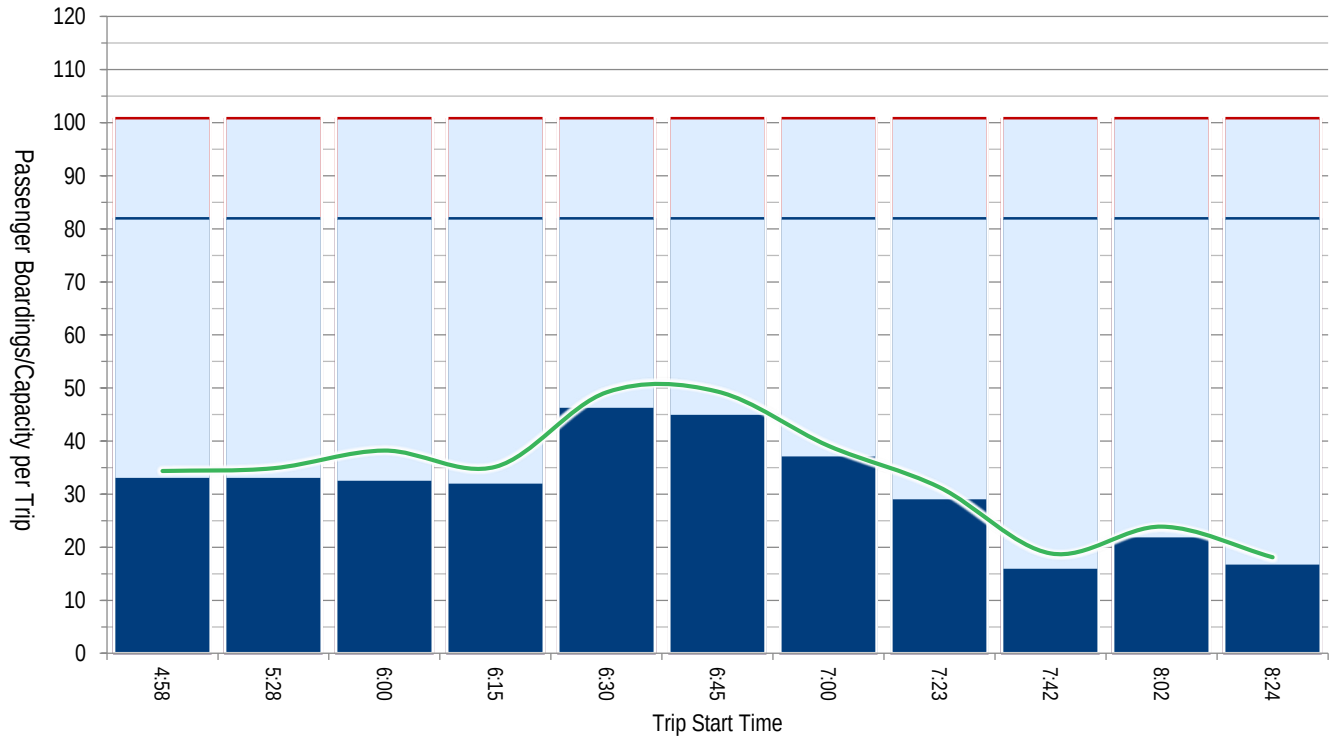


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday Southbound Average Trip Ridership & Maximum Passenger Loads



SR-522



SERVICE CHANGE HISTORY

- **June 2018:** Construction completed in Downtown Bothell
- **Sept 2018:** Stop discontinued at Bothell Way NE & NE Ballinger Way
- **Sept 2019**: 1 AM Peak trip added to alleviate overcrowding

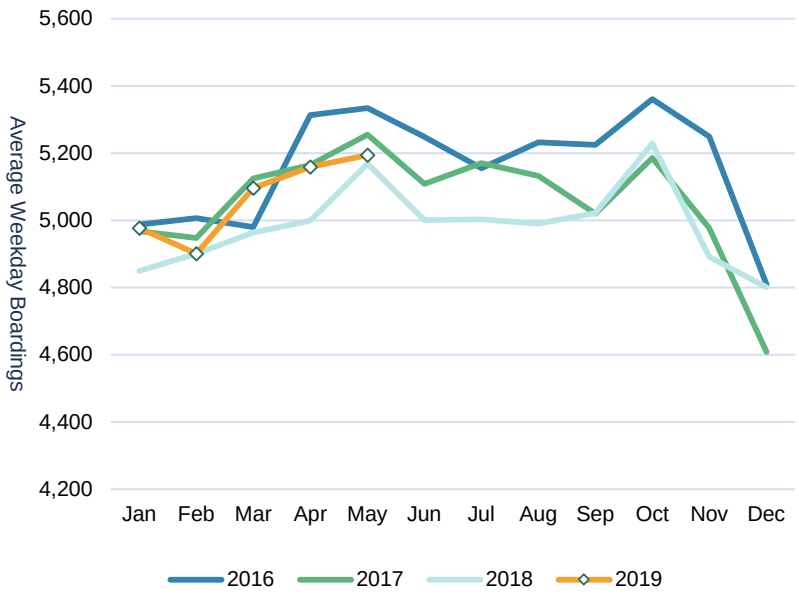
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span																							
			2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a	1a
Wkdy	North	522						30							7-15					30			60			
	South	522					30	10-12			15					30							60			

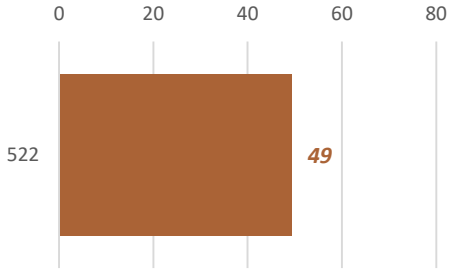
	Direction	Route	Frequency & Span																							
			2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a	1a
Sat	North	522													30								60			
	South	522													30								60			

	Direction	Route	Frequency & Span																							
			2a	3a	4a	5a	6a	7a	8a	9a	10a	11a	12p	1p	2p	3p	4p	5p	6p	7p	8p	9p	10p	11p	12a	1a
Sun	North	522													30								60			
	South	522													30								60			

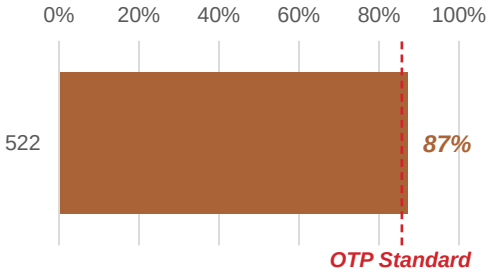
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

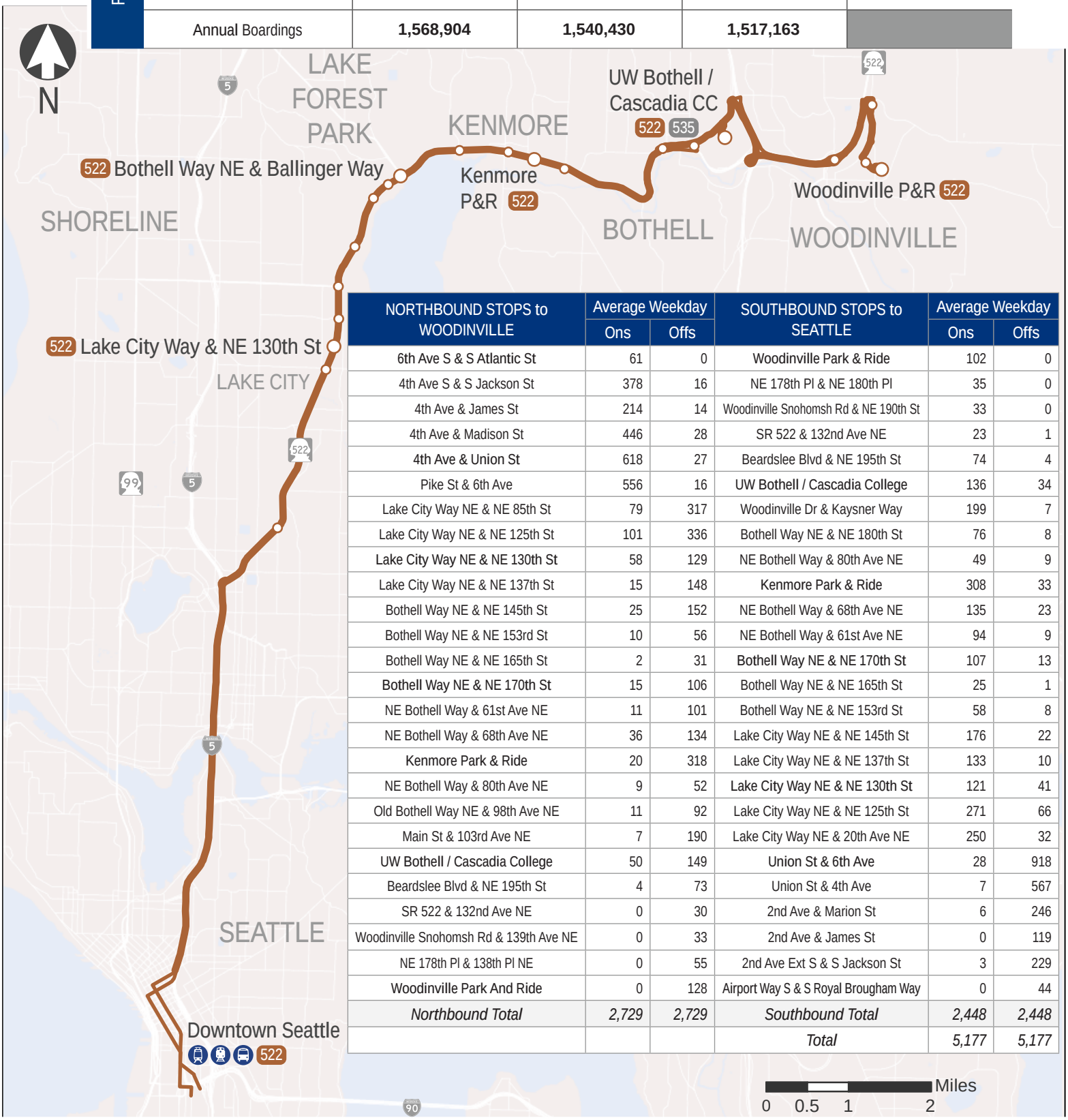
- **Route 522 -** Evaluate loads during peak periods after new trip added, shift schedules as needed to reduce overcrowding.

LONG TERM CORRIDOR OUTLOOK

- **2021 –** Northgate Link Extension opens
- **2024 –** SR 522 Stride between South Shoreline and Woodinville opens

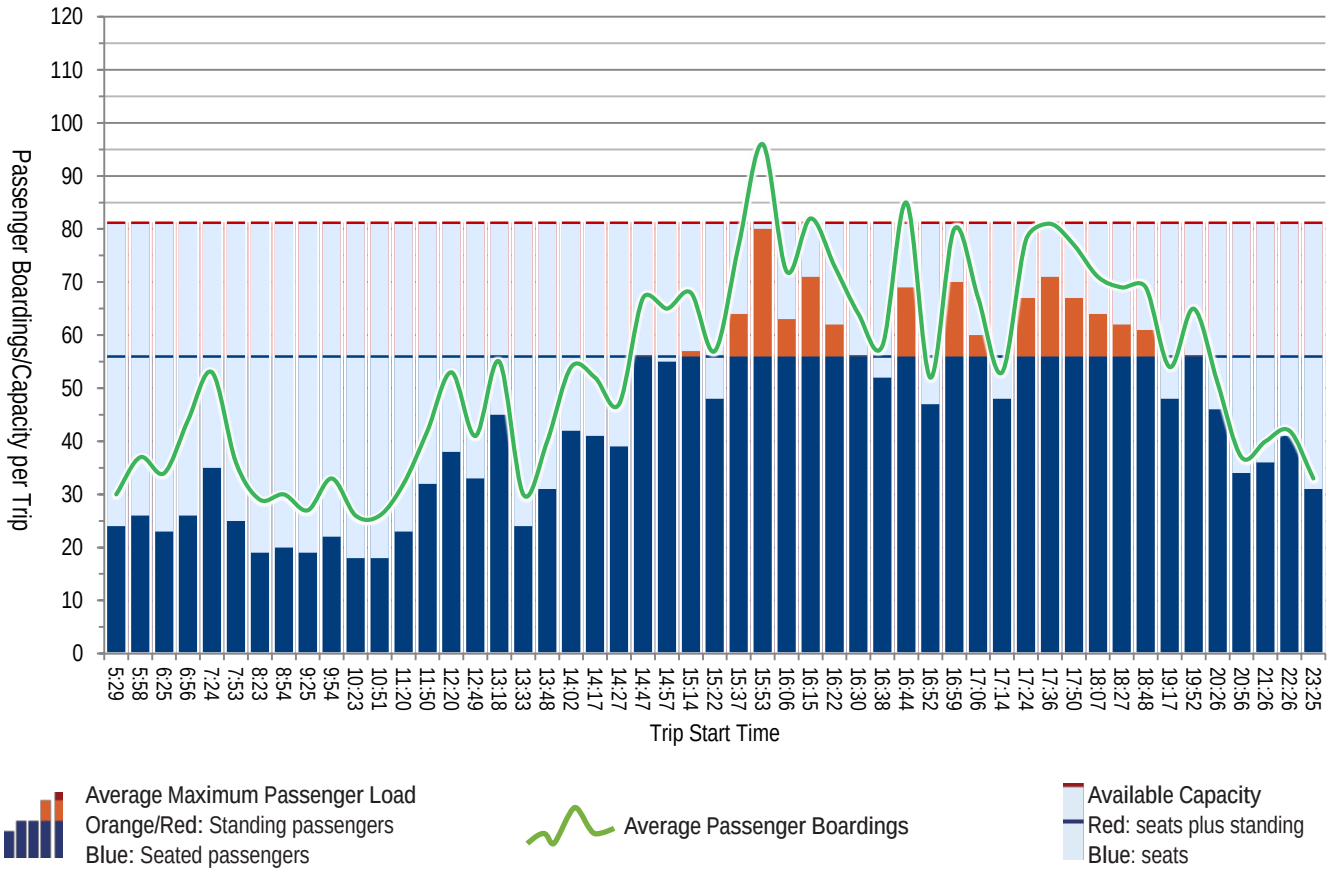
SR 522 Route 522 Woodinville - Seattle

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	5,159	5,059	4,988	5,177
	Average Saturday Boardings	2,575	2,657	2,531	2,503
	Average Sunday Boardings	2,016	1,987	1,961	2,019
	Annual Boardings	1,568,904	1,540,430	1,517,163	

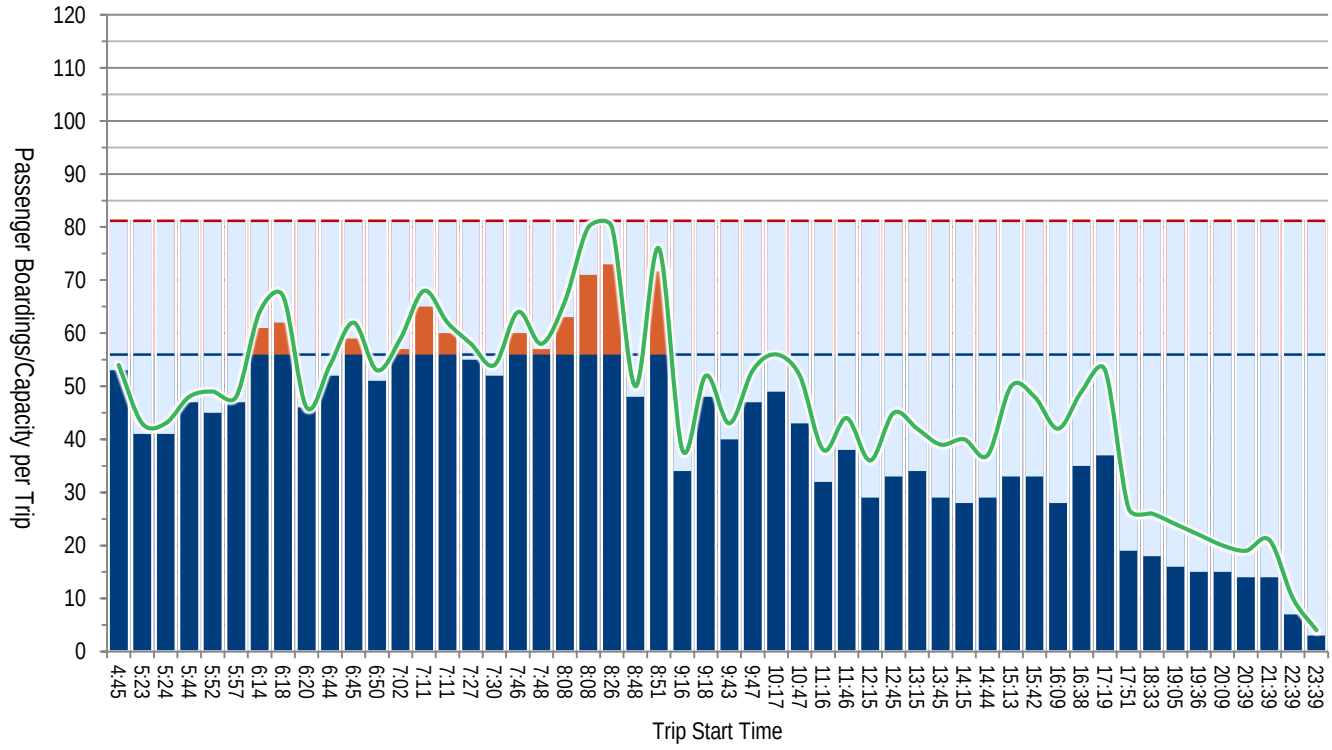


NORTHBOUND STOPS to WOODINVILLE	Average Weekday		SOUTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs		Ons	Offs
6th Ave S & S Atlantic St	61	0	Woodinville Park & Ride	102	0
4th Ave S & S Jackson St	378	16	NE 178th Pl & NE 180th Pl	35	0
4th Ave & James St	214	14	Woodinville Snohomsh Rd & NE 190th St	33	0
4th Ave & Madison St	446	28	SR 522 & 132nd Ave NE	23	1
4th Ave & Union St	618	27	Beardslee Blvd & NE 195th St	74	4
Pike St & 6th Ave	556	16	UW Bothell / Cascadia College	136	34
Lake City Way NE & NE 85th St	79	317	Woodinville Dr & Kaysner Way	199	7
Lake City Way NE & NE 125th St	101	336	Bothell Way NE & NE 180th St	76	8
Lake City Way NE & NE 130th St	58	129	NE Bothell Way & 80th Ave NE	49	9
Lake City Way NE & NE 137th St	15	148	Kenmore Park & Ride	308	33
Bothell Way NE & NE 145th St	25	152	NE Bothell Way & 68th Ave NE	135	23
Bothell Way NE & NE 153rd St	10	56	NE Bothell Way & 61st Ave NE	94	9
Bothell Way NE & NE 165th St	2	31	Bothell Way NE & NE 170th St	107	13
Bothell Way NE & NE 170th St	15	106	Bothell Way NE & NE 165th St	25	1
NE Bothell Way & 61st Ave NE	11	101	Bothell Way NE & NE 153rd St	58	8
NE Bothell Way & 68th Ave NE	36	134	Lake City Way NE & NE 145th St	176	22
Kenmore Park & Ride	20	318	Lake City Way NE & NE 137th St	133	10
NE Bothell Way & 80th Ave NE	9	52	Lake City Way NE & NE 130th St	121	41
Old Bothell Way NE & 98th Ave NE	11	92	Lake City Way NE & NE 125th St	271	66
Main St & 103rd Ave NE	7	190	Lake City Way NE & 20th Ave NE	250	32
UW Bothell / Cascadia College	50	149	Union St & 6th Ave	28	918
Beardslee Blvd & NE 195th St	4	73	Union St & 4th Ave	7	567
SR 522 & 132nd Ave NE	0	30	2nd Ave & Marion St	6	246
Woodinville Snohomsh Rd & 139th Ave NE	0	33	2nd Ave & James St	0	119
NE 178th Pl & 138th Pl NE	0	55	2nd Ave Ext S & S Jackson St	3	229
Woodinville Park And Ride	0	128	Airport Way S & S Royal Brougham Way	0	44
Northbound Total	*2,729*	*2,729*	*Southbound Total*	*2,448*	*2,448*
			Total	*5,177*	*5,177*

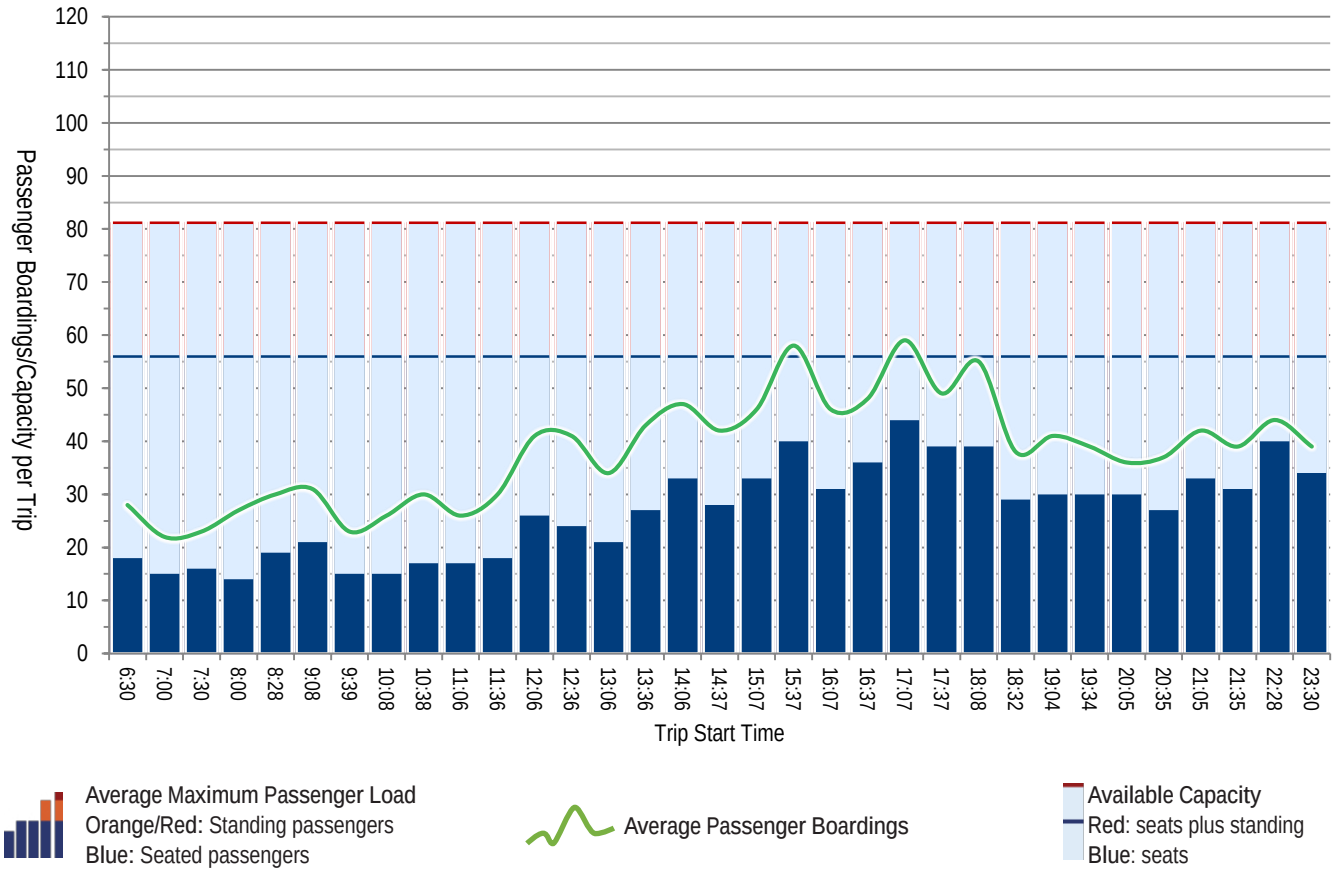
Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



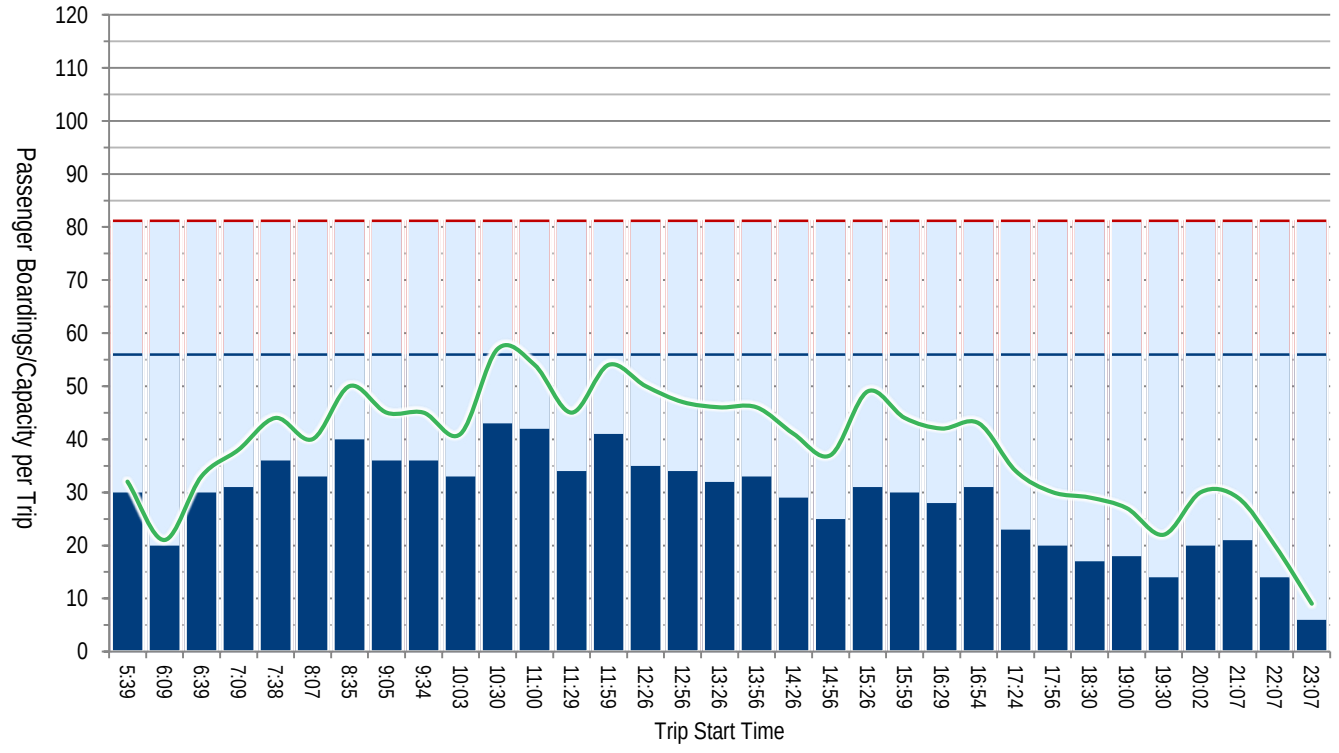
Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



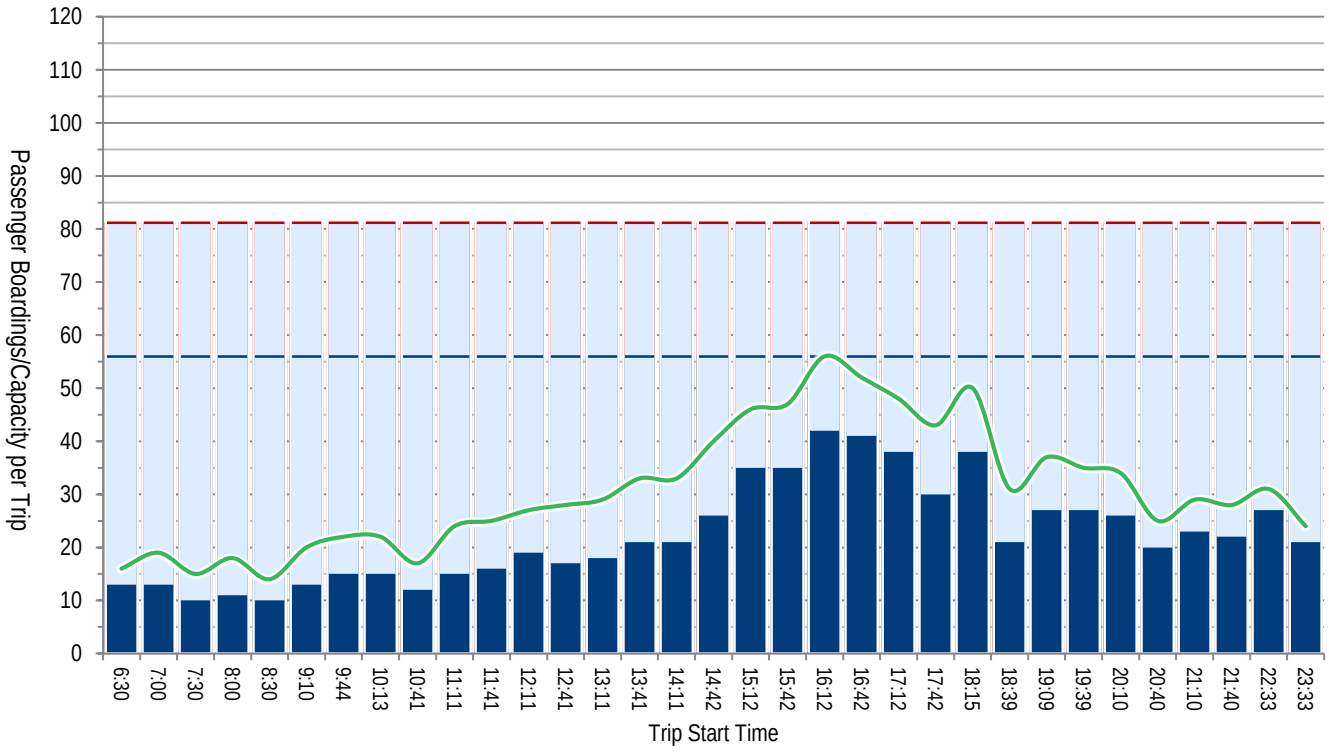
Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday



Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday

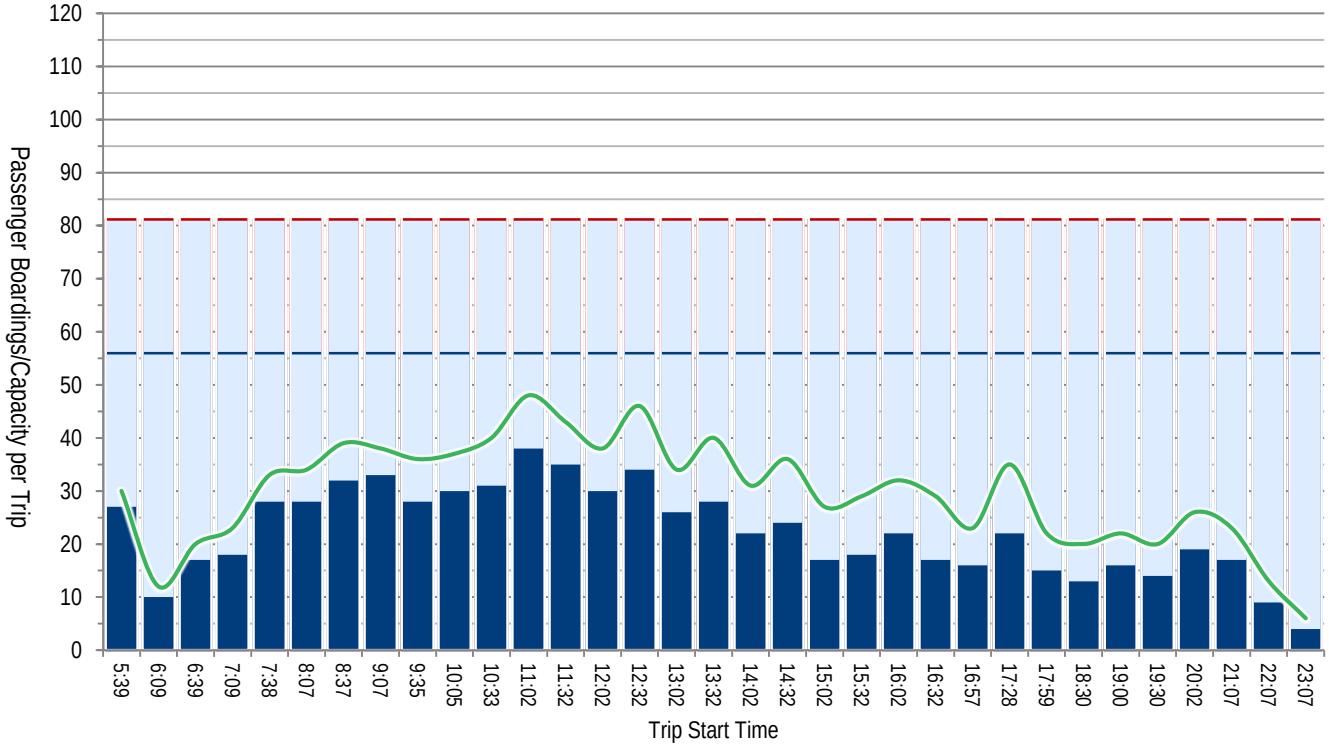


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

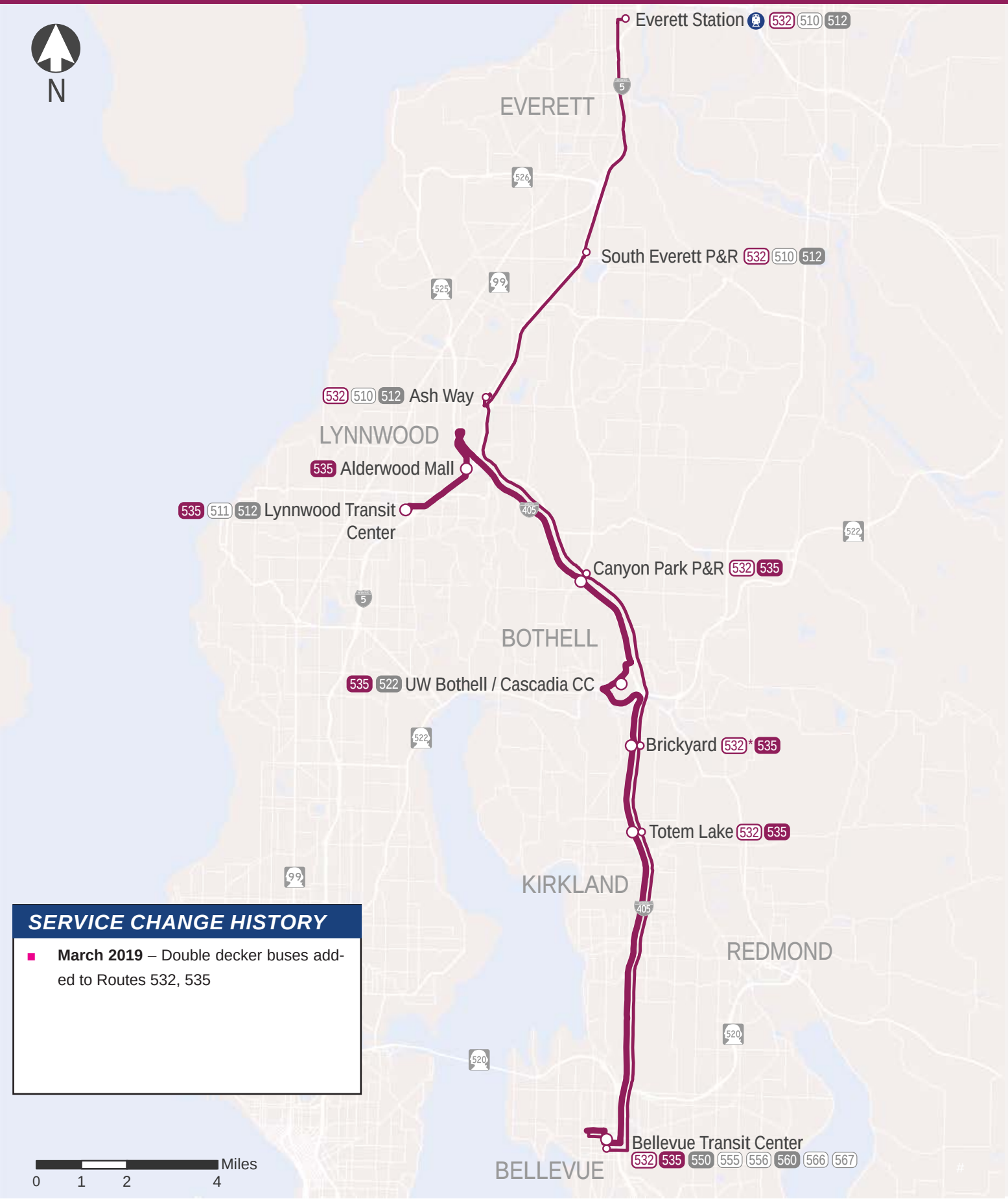
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



I-405 North



SERVICE CHANGE HISTORY

- **March 2019** – Double decker buses added to Routes 532, 535

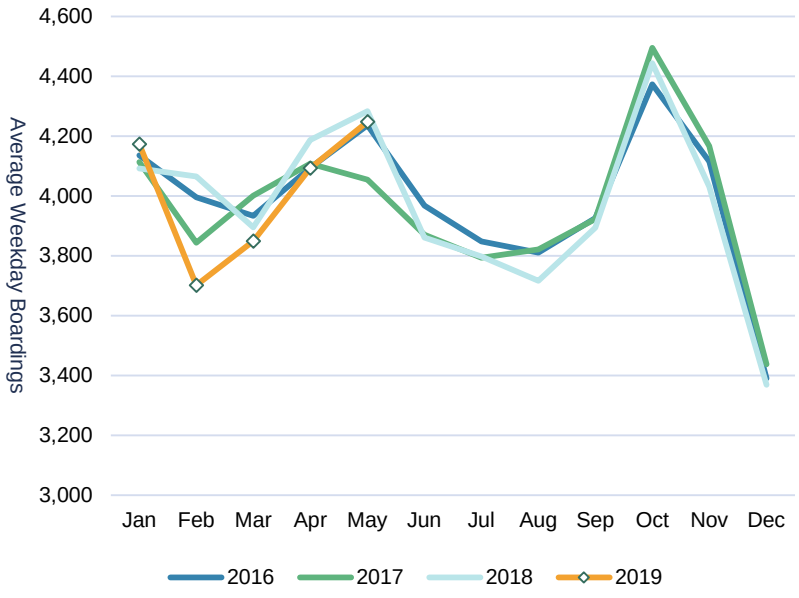
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span
			2a 3a 4a 5a 6a 7a 8a 9a 10a 11a 12p 1p 2p 3p 4p 5p 6p 7p 8p 9p 10p 11p 12a 1a
Weekday	North	532	30 — 30 — 10-15 — 30
		535	30 — 60
	South	532	20-30 — 10 — 20-30 — 30
		535	30 — 60

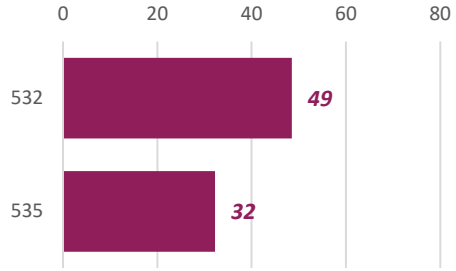
	Direction	Route	Frequency & Span
			2a 3a 4a 5a 6a 7a 8a 9a 10a 11a 12p 1p 2p 3p 4p 5p 6p 7p 8p 9p 10p 11p 12a 1a
Sat	North	535	60
	South	535	60

	Direction	Route	Frequency & Span
			2a 3a 4a 5a 6a 7a 8a 9a 10a 11a 12p 1p 2p 3p 4p 5p 6p 7p 8p 9p 10p 11p 12a 1a
Sun	North		No Sunday Service in Corridor
	South		

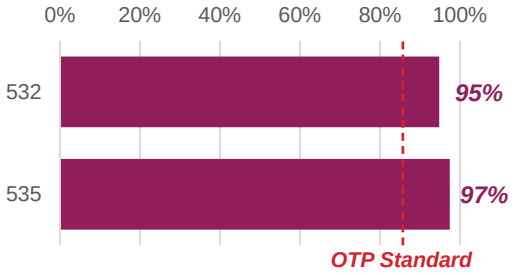
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

- Route 532 - Evaluate passenger loads with the introduction of double deckers along corridor. Shift schedules and trips as needed to better align with passenger demand.

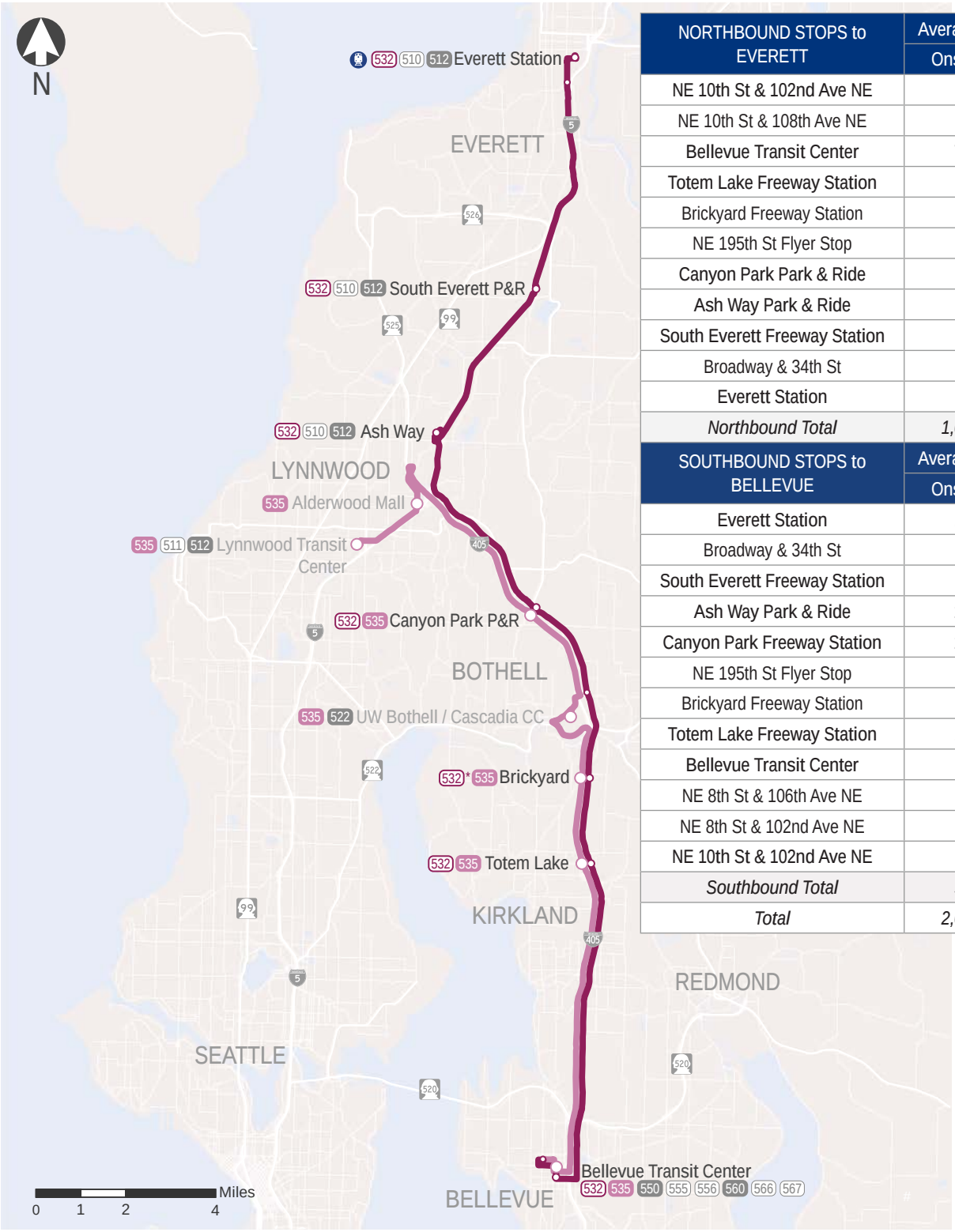
LONG TERM CORRIDOR OUTLOOK

- **2024 -** Stride between Lynnwood and Bellevue opens
- **2036 -** Everett Link Extension scheduled to open

I-405 North

Route 532 Everett - Bellevue

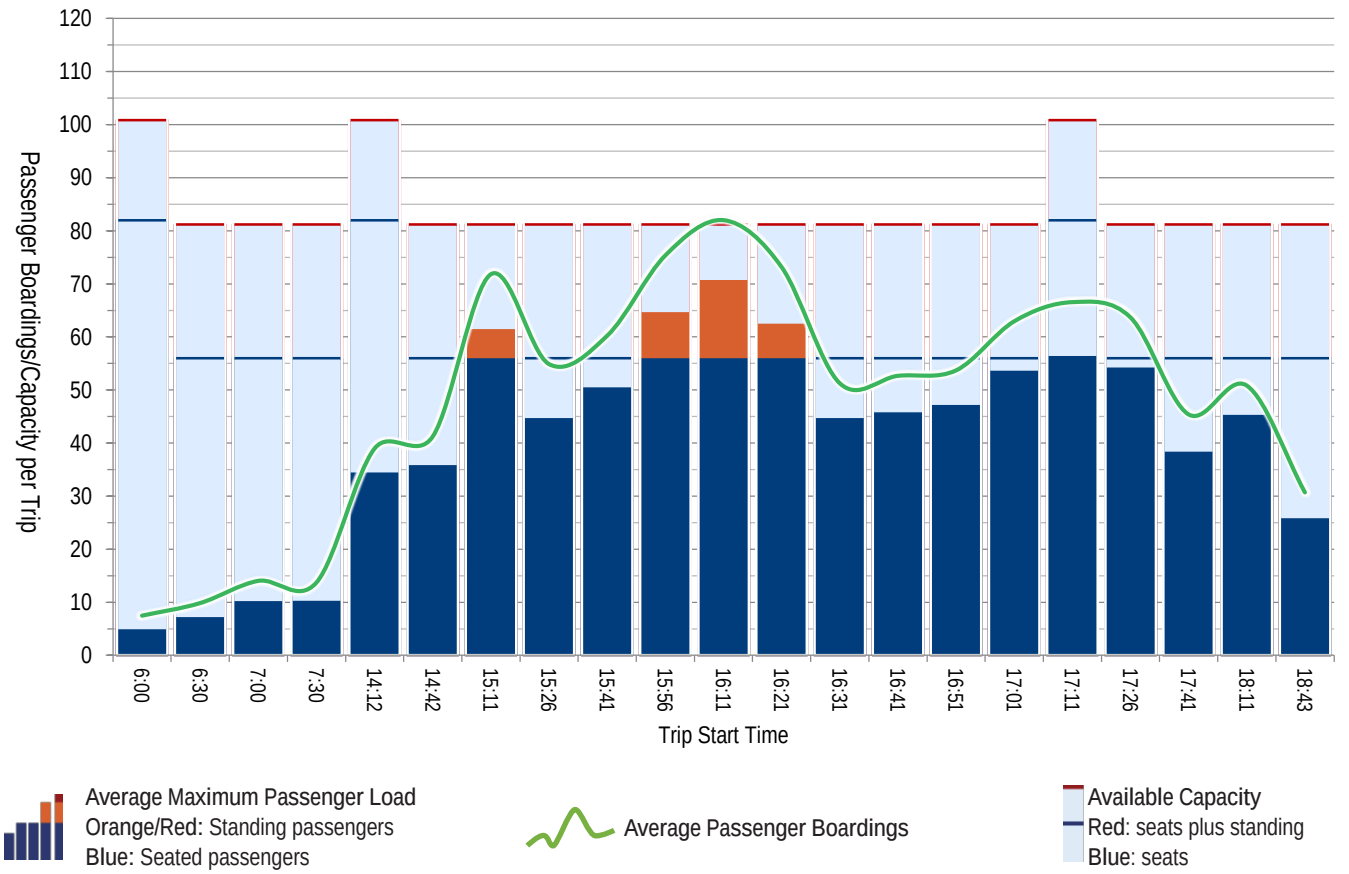
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	2,083	2,052	2,034	2,008
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	531,172	521,334	518,695	



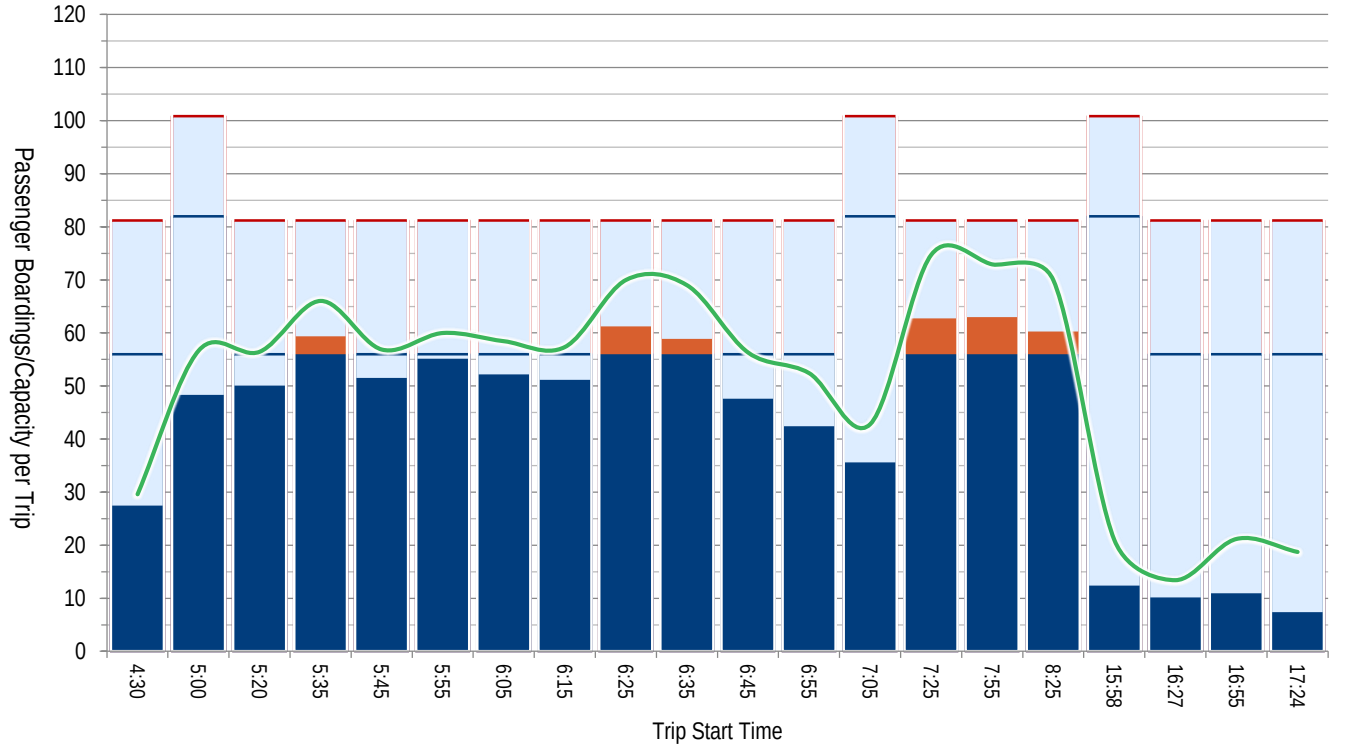
NORTHBOUND STOPS to EVERETT	Average Weekday	
	Ons	Offs
NE 10th St & 102nd Ave NE	52	0
NE 10th St & 108th Ave NE	96	1
Bellevue Transit Center	706	5
Totem Lake Freeway Station	92	156
Brickyard Freeway Station	2	0
NE 195th St Flyer Stop	1	5
Canyon Park Park & Ride	36	339
Ash Way Park & Ride	28	275
South Everett Freeway Station	4	107
Broadway & 34th St	0	13
Everett Station	0	116
Northbound Total	*1,018*	*1,018*

SOUTHBOUND STOPS to BELLEVUE	Average Weekday	
	Ons	Offs
Everett Station	133	0
Broadway & 34th St	20	1
South Everett Freeway Station	115	3
Ash Way Park & Ride	299	16
Canyon Park Freeway Station	289	38
NE 195th St Flyer Stop	6	2
Brickyard Freeway Station	2	1
Totem Lake Freeway Station	122	92
Bellevue Transit Center	4	757
NE 8th St & 106th Ave NE	0	46
NE 8th St & 102nd Ave NE	0	11
NE 10th St & 102nd Ave NE	0	23
Southbound Total	*990*	*990*
Total	*2,008*	*2,008*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



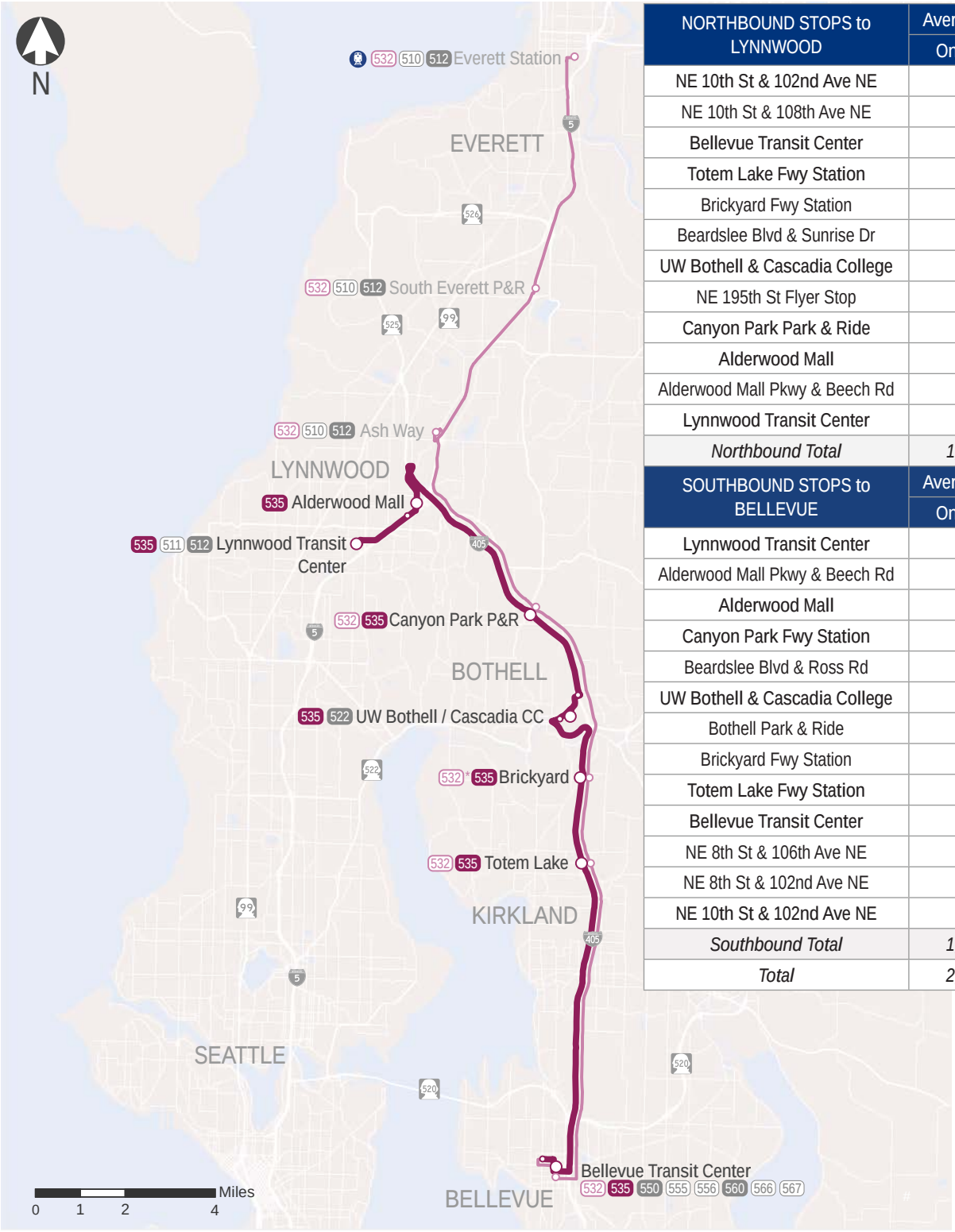
Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



I-405 North

Route 535 Lynnwood - Bellevue

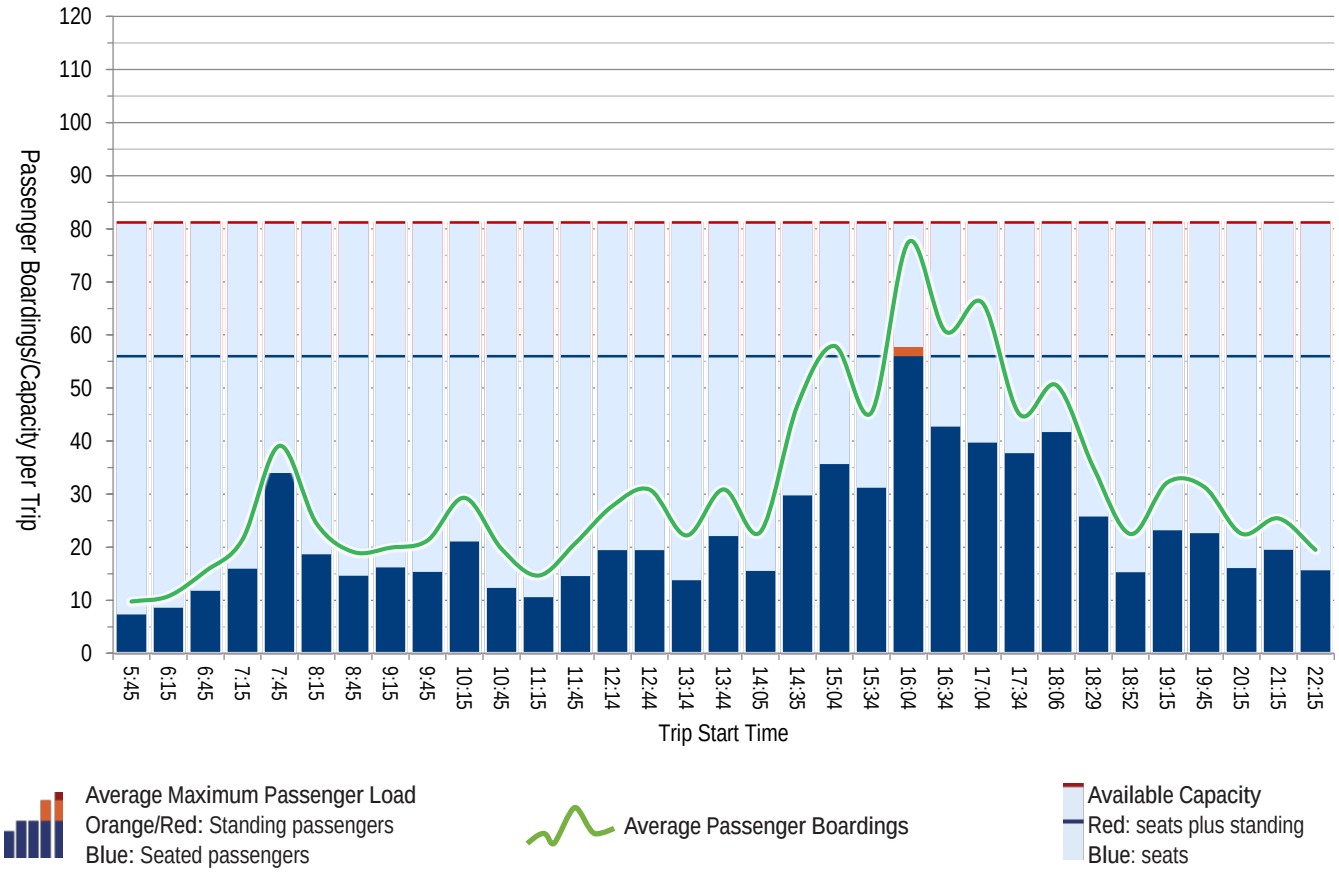
Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	1,901	1,921	1,941	2,162
Average Saturday Boardings	532	547	545	610
Average Sunday Boardings	N/A	N/A	N/A	N/A
Annual Boardings	512,940	516,330	523,373	



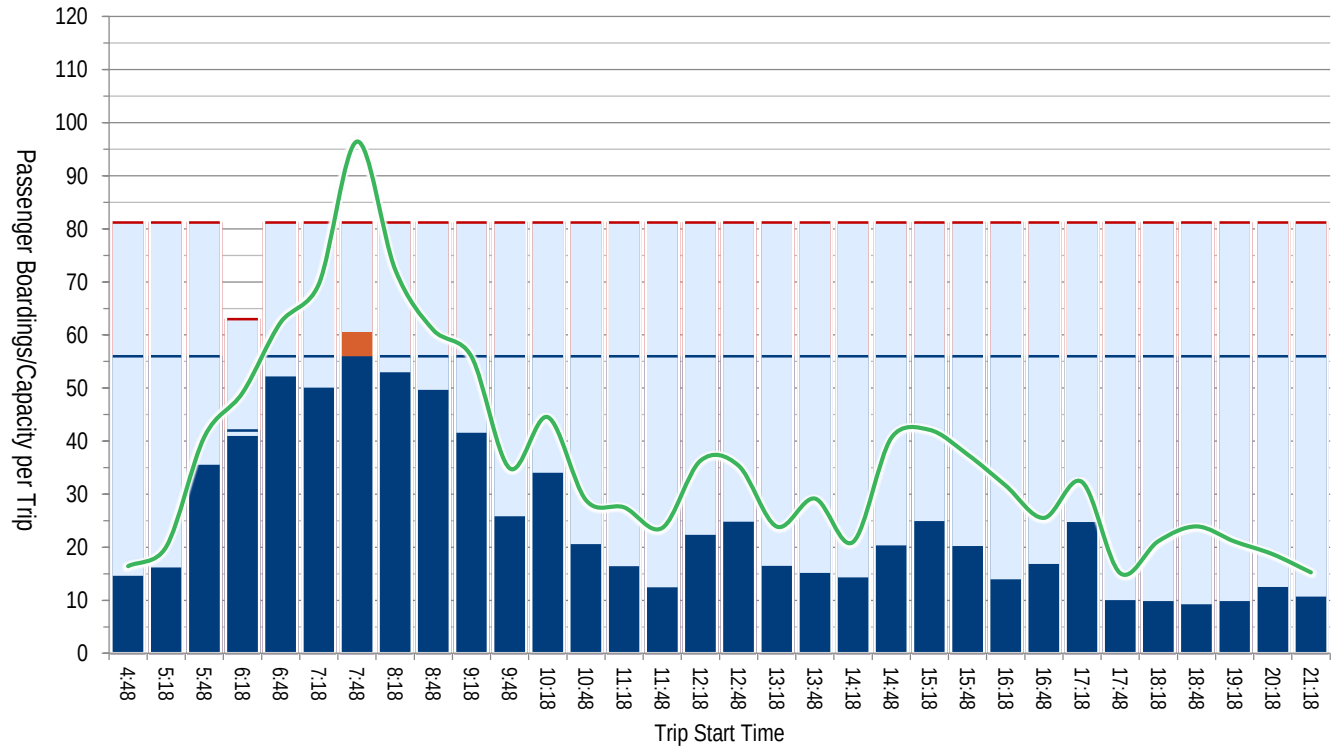
NORTHBOUND STOPS to LYNNWOOD	Average Weekday	
	Ons	Offs
NE 10th St & 102nd Ave NE	70	0
NE 10th St & 108th Ave NE	35	1
Bellevue Transit Center	614	10
Totem Lake Fwy Station	80	133
Brickyard Fwy Station	20	116
Beardslee Blvd & Sunrise Dr	15	110
UW Bothell & Cascadia College	172	166
NE 195th St Flyer Stop	23	20
Canyon Park Park & Ride	25	130
Alderwood Mall	6	119
Alderwood Mall Pkwy & Beech Rd	3	23
Lynnwood Transit Center	0	235
Northbound Total	*1,064*	*1,064*

SOUTHBOUND STOPS to BELLEVUE	Average Weekday	
	Ons	Offs
Lynnwood Transit Center	328	0
Alderwood Mall Pkwy & Beech Rd	32	3
Alderwood Mall	95	4
Canyon Park Fwy Station	131	26
Beardslee Blvd & Ross Rd	40	30
UW Bothell & Cascadia College	155	182
Bothell Park & Ride	92	9
Brickyard Fwy Station	103	19
Totem Lake Fwy Station	116	67
Bellevue Transit Center	6	671
NE 8th St & 106th Ave NE	0	28
NE 8th St & 102nd Ave NE	0	19
NE 10th St & 102nd Ave NE	0	41
Southbound Total	*1,098*	*1,098*
Total	*2,162*	*2,162*

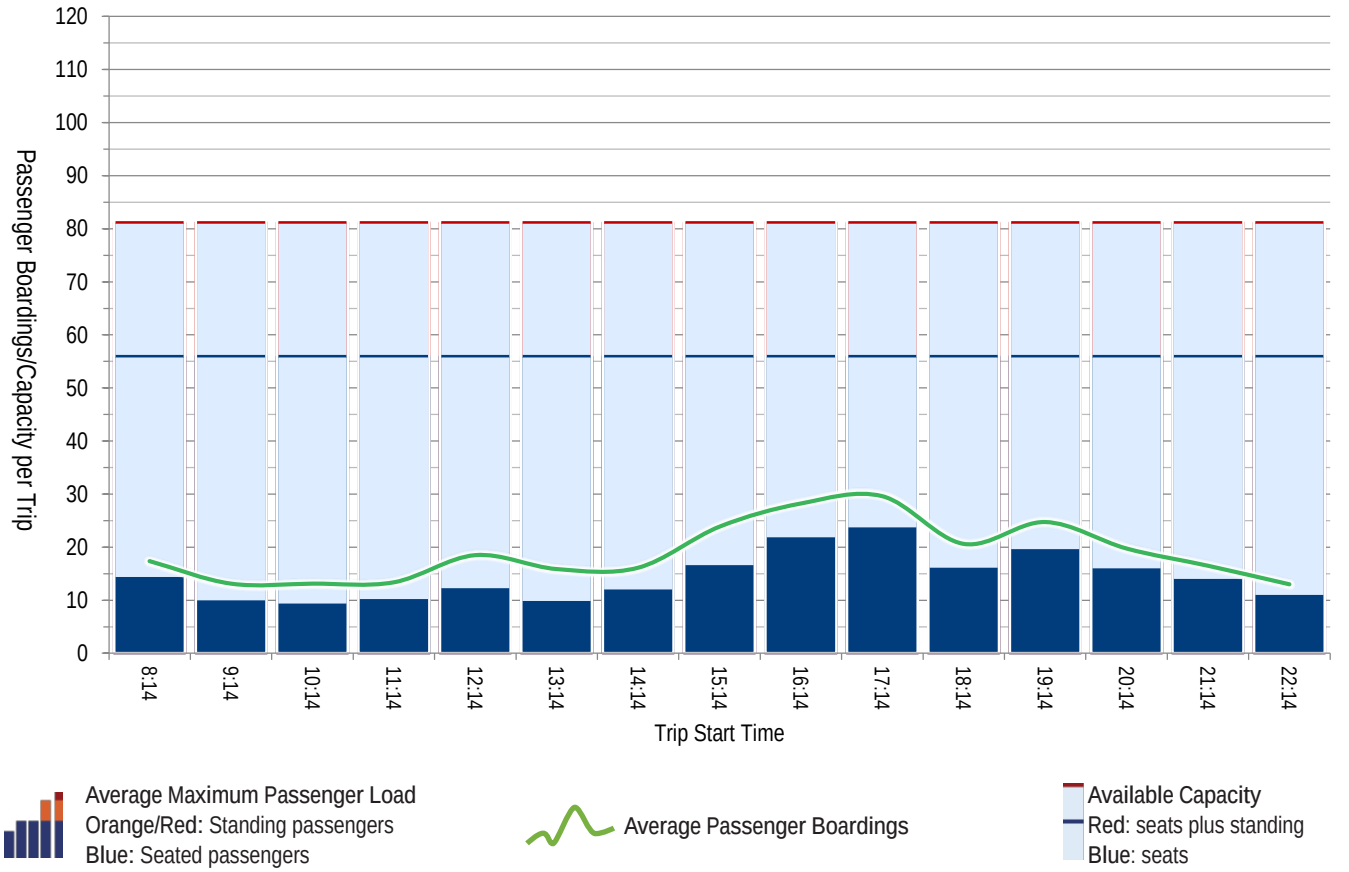
Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



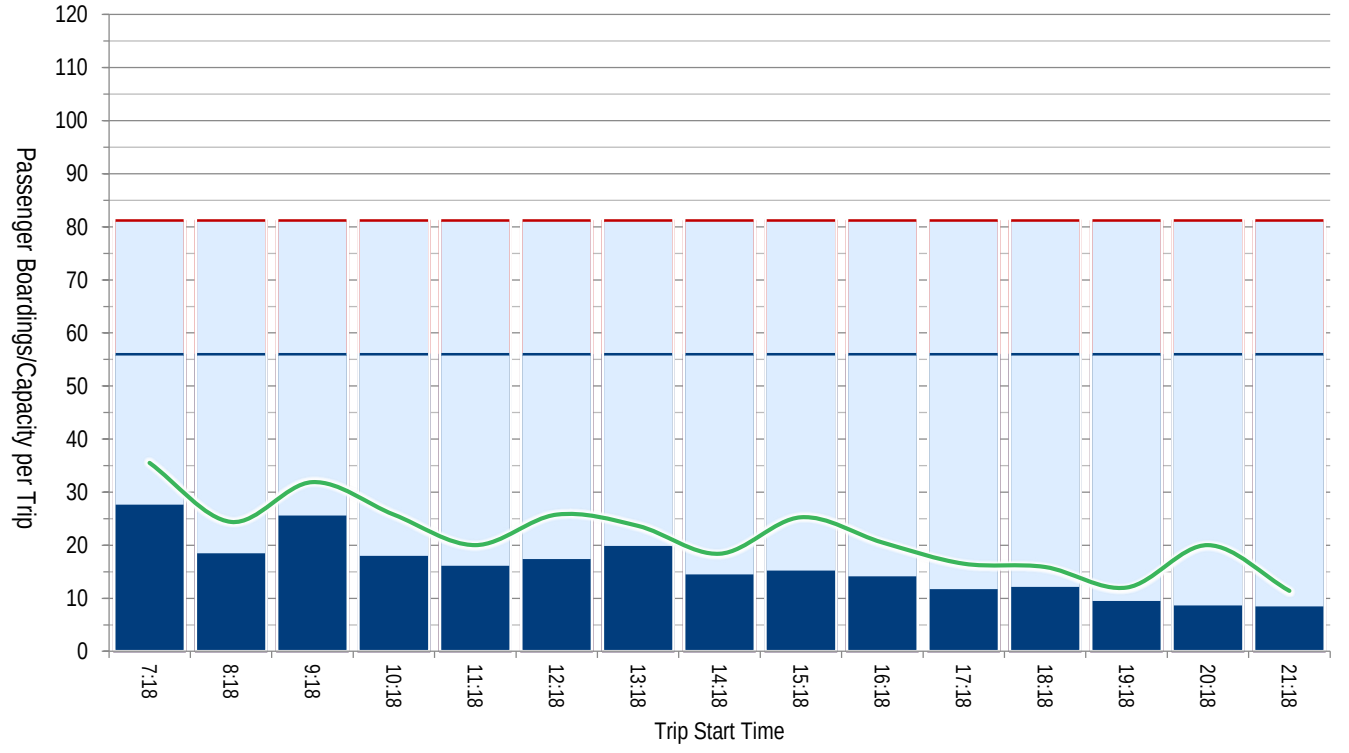
Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday

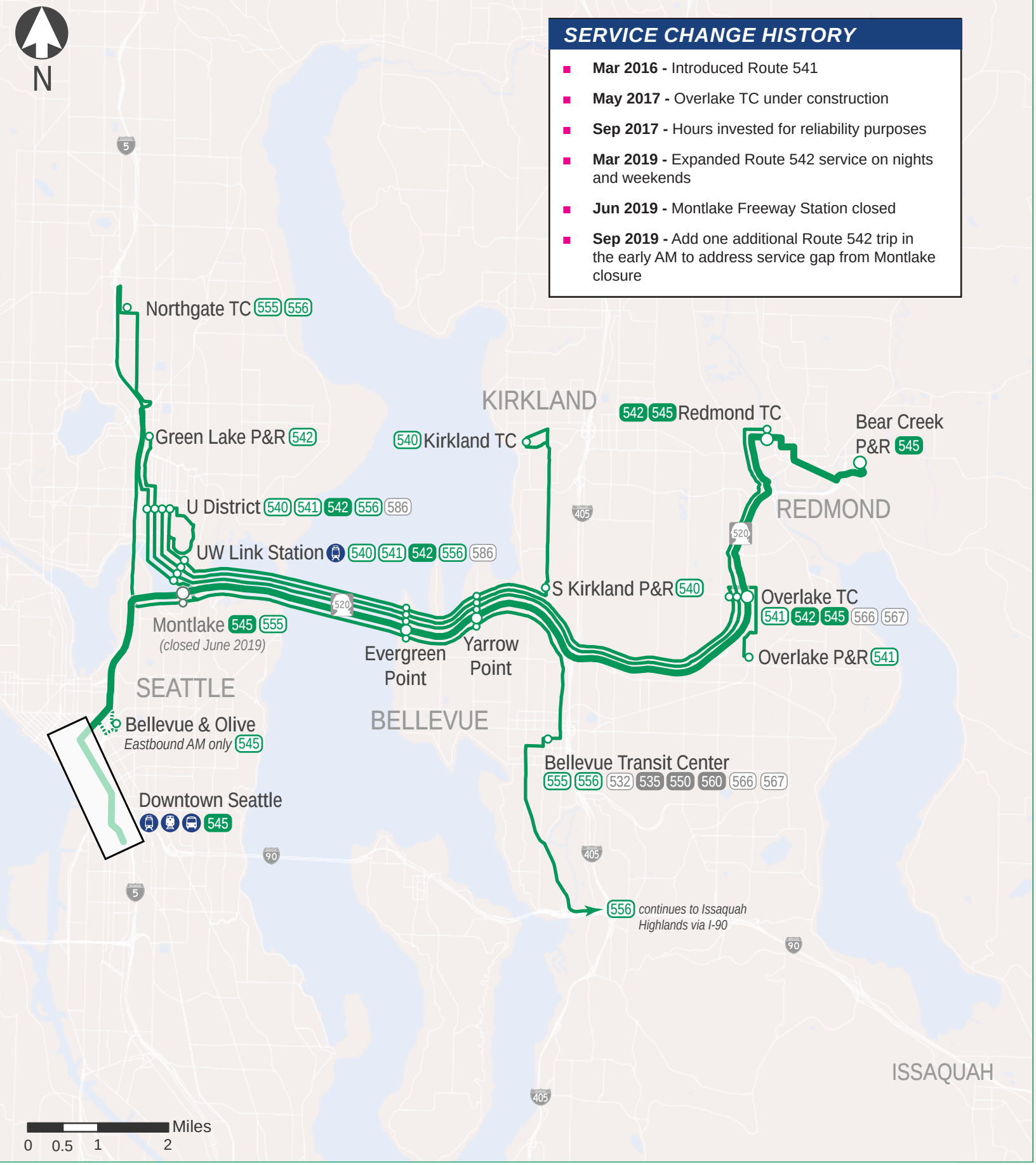


Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



No Sunday service operated on Route 535

SR 520


N
SERVICE CHANGE HISTORY
Mar 2016 - Introduced Route 541
May 2017 - Overlake TC under construction
Sep 2017 - Hours invested for reliability purposes
Mar 2019 - Expanded Route 542 service on nights and weekends
Jun 2019 - Montlake Freeway Station closed
Sep 2019 - Add one additional Route 542 trip in the early AM to address service gap from Montlake closure
Northgate TC 555 556
Green Lake P&R 542
U District 540 541 542 556 586
UW Link Station 540 541 542 556 586
Montlake 545 555
(closed June 2019)
SEATTLE
Bellevue & Olive
Eastbound AM only 545
Downtown Seattle
545
KIRKLAND
540 Kirkland TC
Evergreen Point
Yarrow Point
S Kirkland P&R 540
542 545 Redmond TC
Bear Creek P&R 545
REDMOND
Overlake TC
541 542 545 566 567
Overlake P&R 541
BELLEVUE
Bellevue Transit Center
555 556 532 535 550 560 566 567
556 continues to Issaquah Highlands via I-90
ISSAQUAH
Miles
0 0.5 1 2

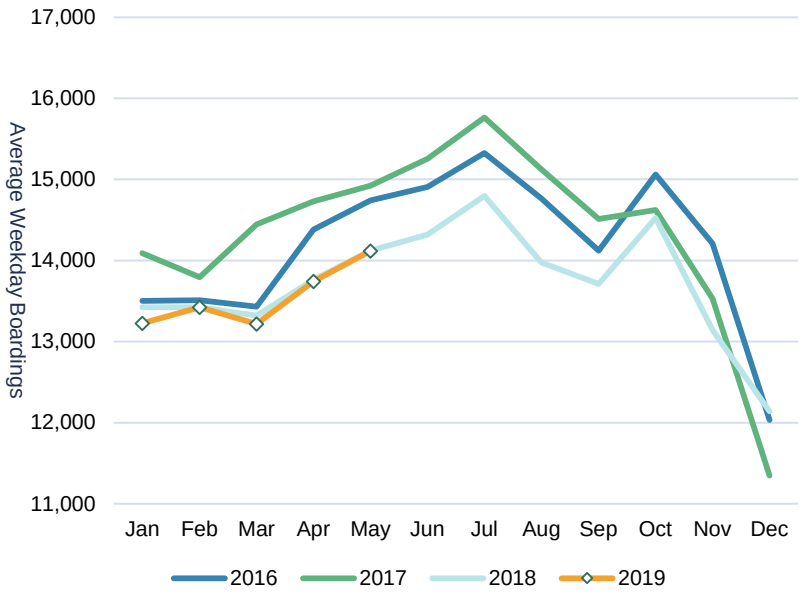
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span
Weekday	East	540	23-30 \| 24-30
		541	20 \| 20
		542	15-20 \| 30 \| 15-20 \| 30
		545	20-30 \| 5 - 10 \| 15 \| 5 - 10 \| 15-20 \| 30
		555 / 556	30 (555) \| 30 (556)
	West	540	23-30 \| 25-30
		541	20 \| 20
		542	20 \| 15 \| 30 \| 20 \| 30
		545	20-30 \| 5 - 10 \| 15 \| 10 \| 15 \| 30
		555 / 556	30 (556) \| 30 (555)

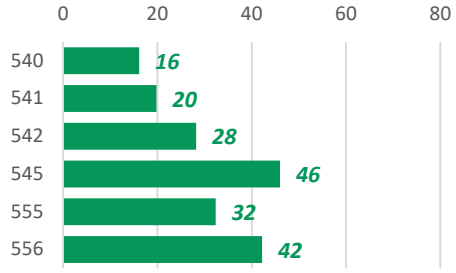
	Direction	Route	Frequency & Span
Sat	East	542	30 \| 60
		545	30 \| 60
	West	542	30
		545	30 \| 60

	Direction	Route	Frequency & Span
Sun	East	542	30 \| 60
		545	30 \| 60
	West	542	30
		545	30 \| 60

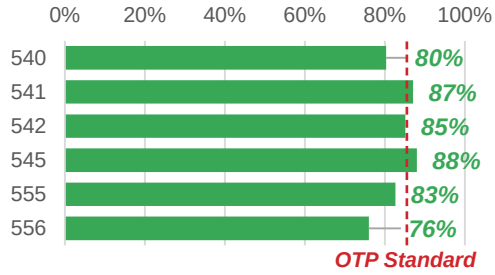
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

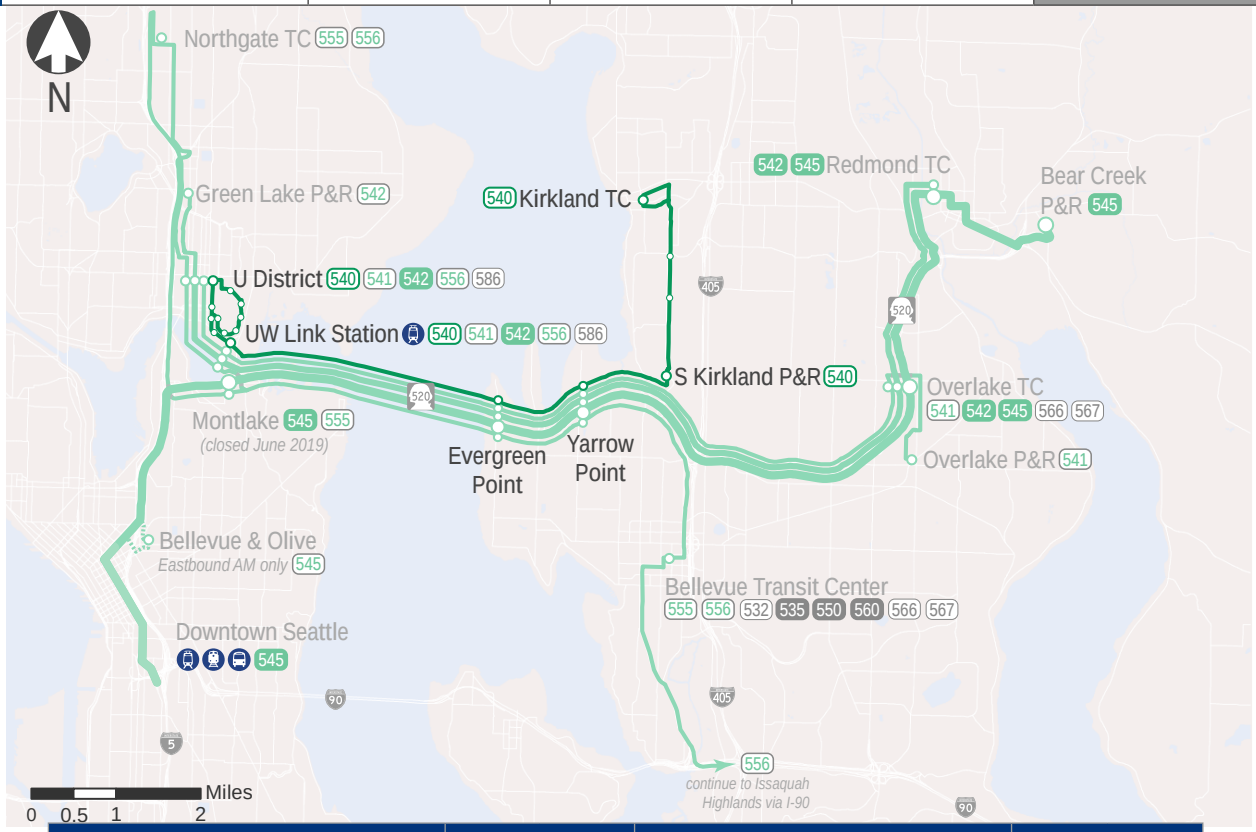
- Route 540/541 - Discontinue Service
- Route 544 - Introduce new route from Overlake P&R to South Lake Union
- Route 542/545 - Evaluate passenger loads and shift resources to address overcrowding
- Route 545 - Discontinue service to Overlake TC bus loop after noon (service remains at SR 520/NE 40th)

LONG TERM CORRIDOR OUTLOOK

- **2023 –** East Link opens, connecting Redmond to Seattle via Bellevue
- **2024 –** Downtown Redmond Link opens
- **2041 –** Issaquah - South Kirkland Link opens

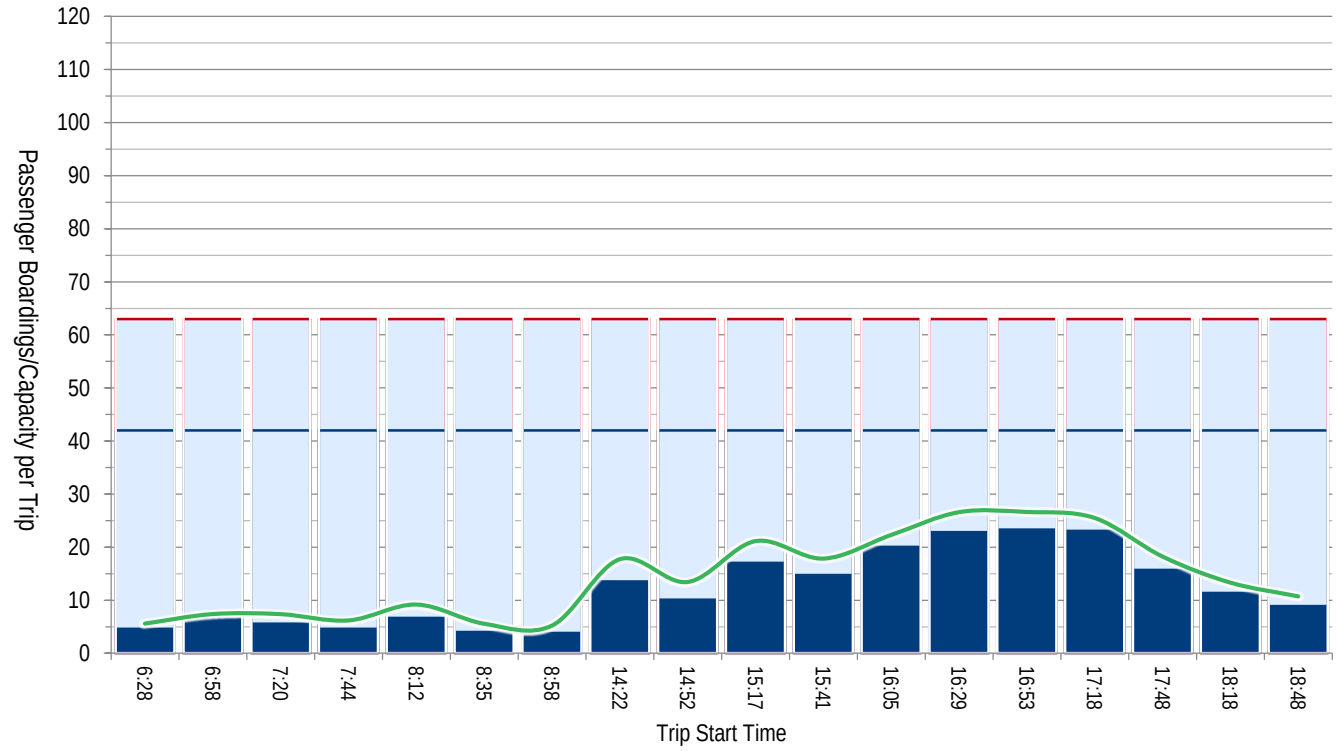
SR 520 Route 540 Kirkland - U District

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	631	598	583	552
Average Saturday Boardings	N/A	N/A	N/A	N/A
Average Sunday Boardings	N/A	N/A	N/A	N/A
Annual Boardings	160,862	151,869	148,773	



EASTBOUND STOPS to KIRKLAND	Average Weekday Ons	Offs	WESTBOUND STOPS to UNIVERSITY DISTRICT	Average Weekday Ons	Offs
Stevens Way & Memorial Way	19	0	Kirkland Transit Center	58	0
Stevens Way & Pend Oreille Rd	23	3	6th St S & 9th Ave S	24	1
Stevens Way & Benton Ln	19	3	108th Ave NE & NE 58th St	6	0
Stevens Way & Rainier Vista	5	5	South Kirkland Park & Ride	139	2
W Stevens Way NE & Okanogan Ln	4	4	SR 520 & 92nd Ave NE	26	6
Stevens Way & George Washington Ln	17	4	Evergreen Point Fwy Station	8	2
15th Ave NE & NE 40th St	31	3	Montlake Blvd E & E Shelby St	1	6
NE Pacific St & 15th Ave NE	22	1	University of Washington Link Station	23	135
University of Washington Link Station	67	4	15th Ave NE & NE Pacific St	3	26
Montlake Blvd E & E Lake Washington Bl	6	1	15th Ave NE & NE 40th St	1	46
Evergreen Point Fwy Station	34	10	15th Ave NE & NE 42nd St	1	9
SR 520 & 92nd Ave NE	6	4	Stevens Way & Memorial Way	4	2
South Kirkland Park & Ride	5	132	Stevens Way & Pend Oreille Rd	1	4
108th Ave NE & NE 58th St	0	7	Stevens Way & Benton Ln	0	1
6th St S & NE 68th St	0	23	Stevens Way & Rainier Vista	0	2
Kirkland Transit Center	0	54	Stevens Way & George Washington Ln	0	1
			15th Ave NE & NE Campus Pkwy	0	51
Eastbound Total	*258*	*258*	*Westbound Total*	*294*	*294*
			Total	*552*	*552*

Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday

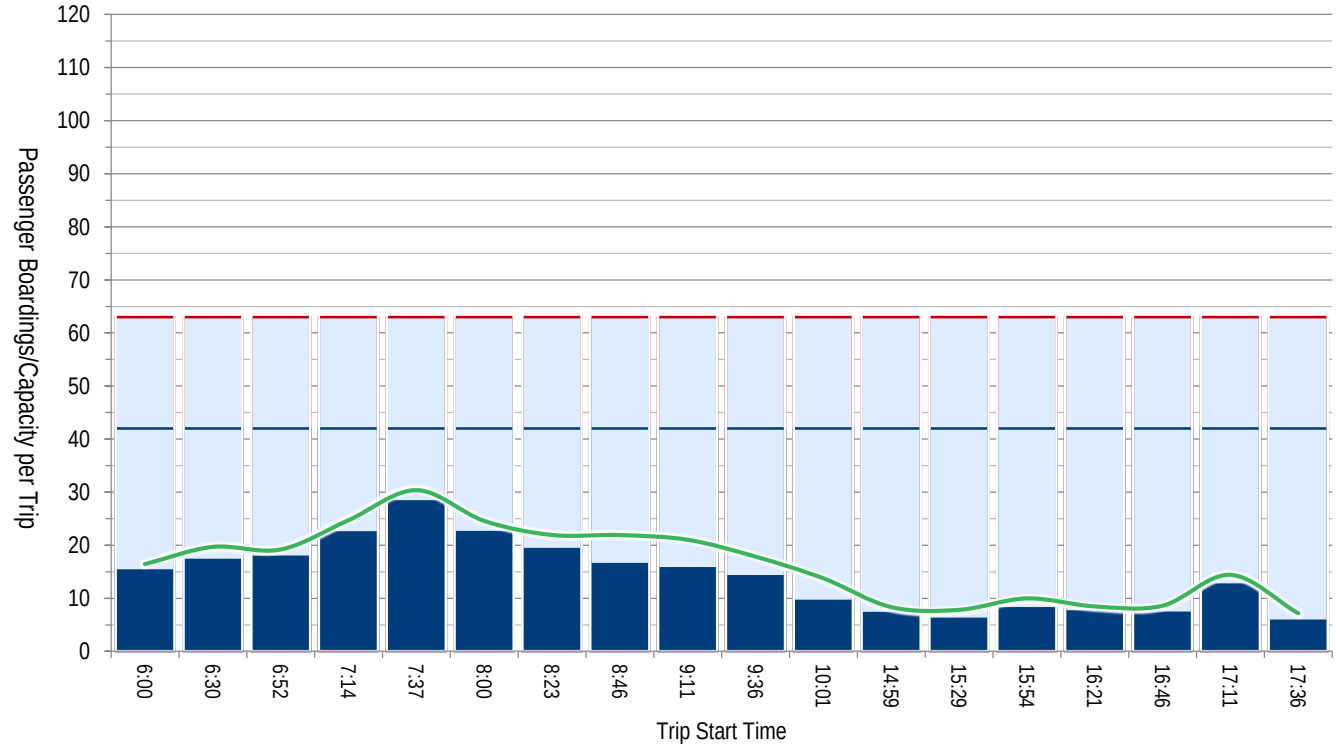


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

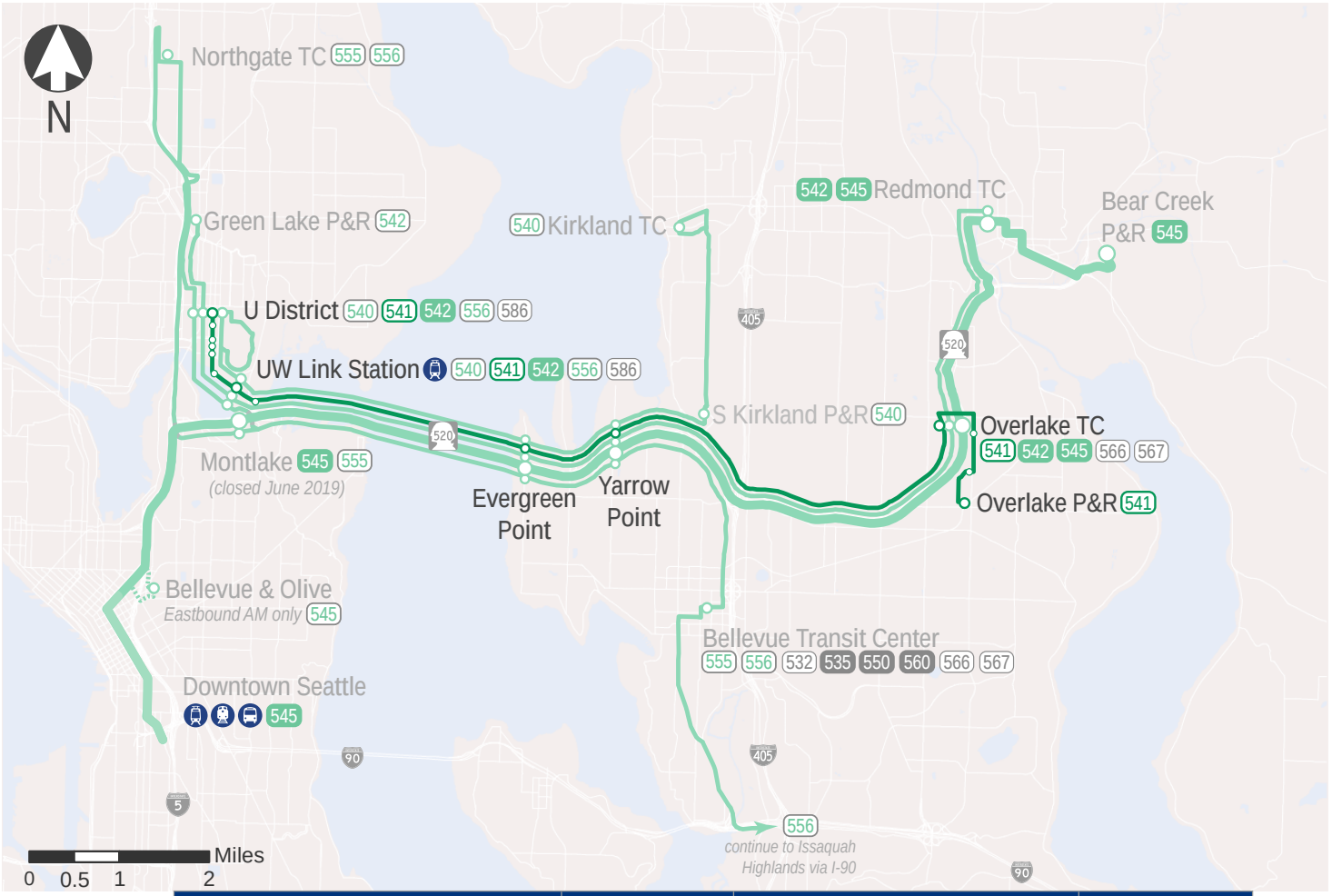
Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



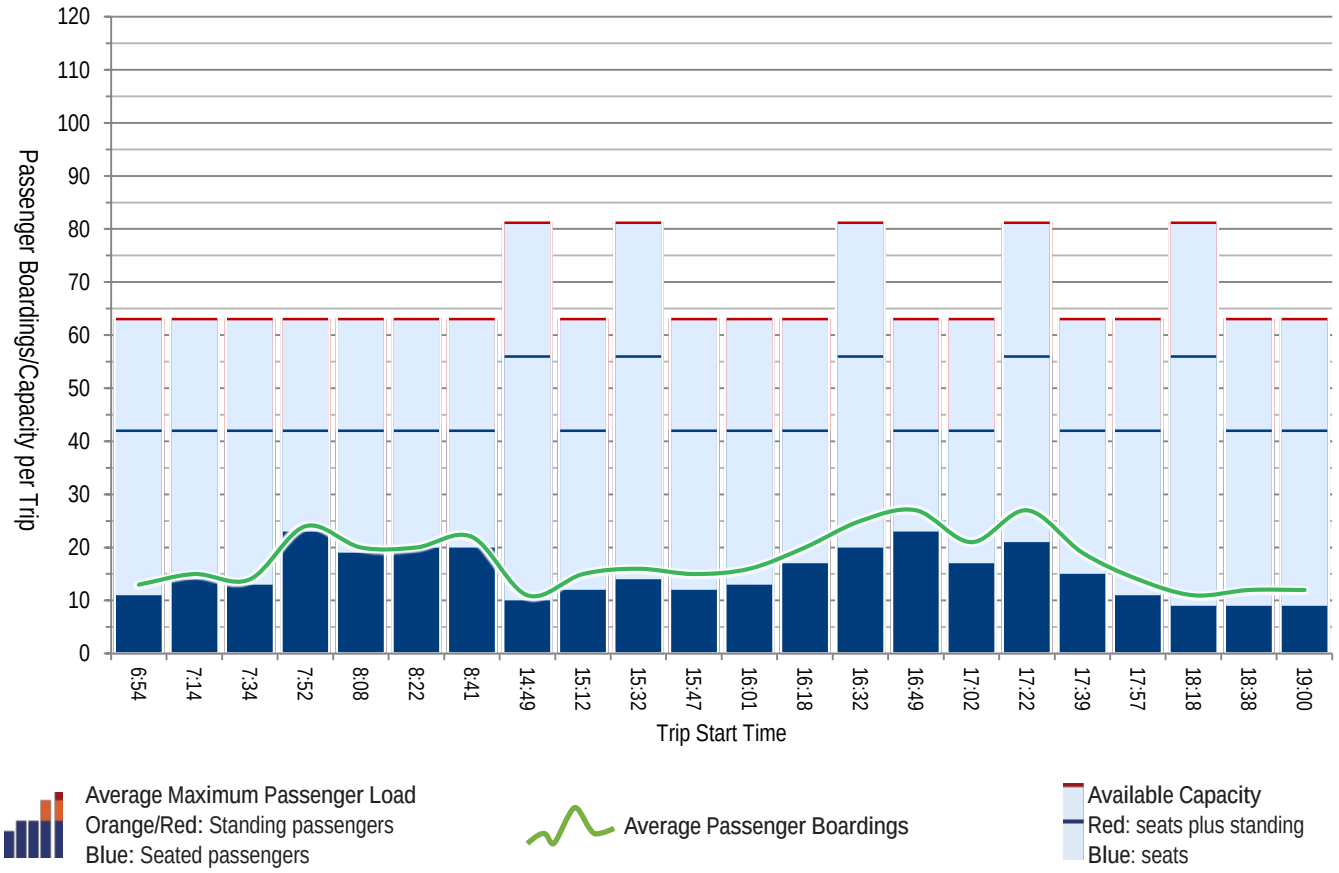
SR 520 Route 541 Overlake - U District

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	521	778	833	873
Average Saturday Boardings	N/A	N/A	N/A	N/A
Average Sunday Boardings	N/A	N/A	N/A	N/A
Annual Boardings	132,851	197,726	212,507	

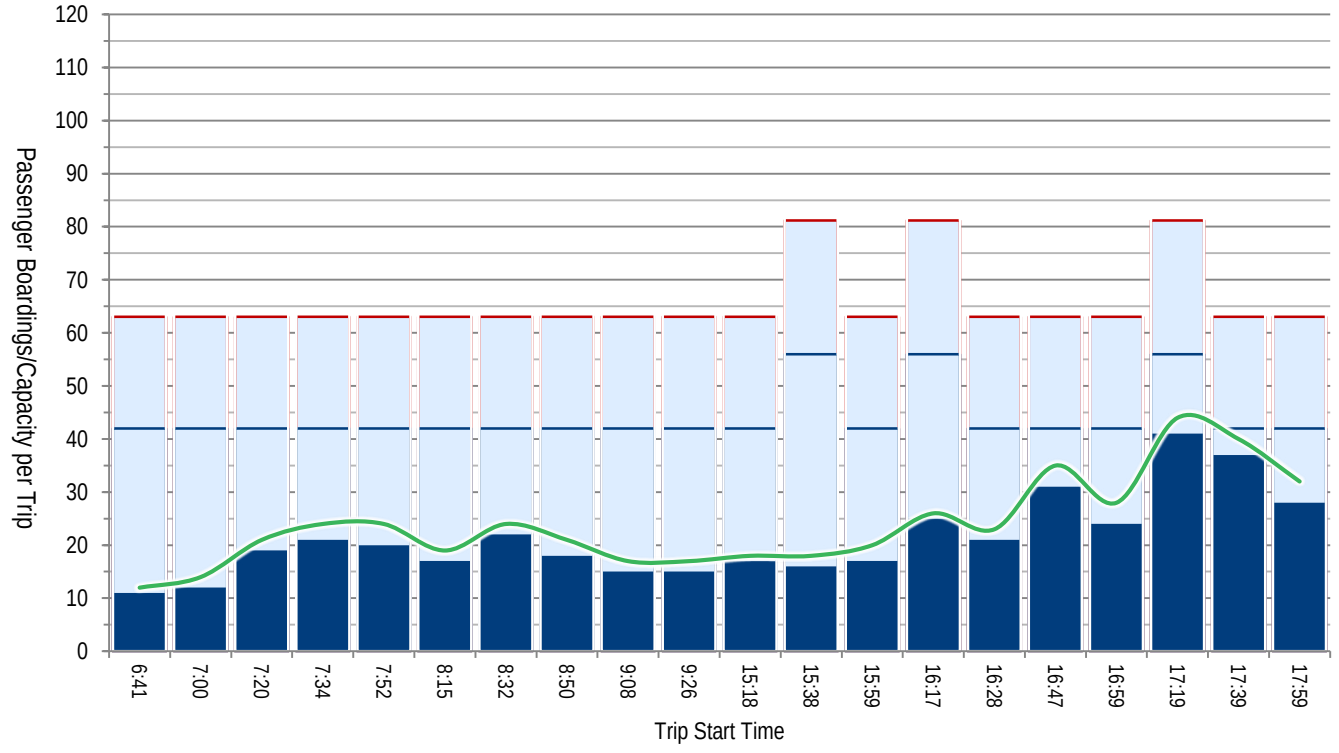


EASTBOUND STOPS to OVERLAKE	Average Weekday Ons	Average Weekday Offs	WESTBOUND STOPS to UNIVERSITY DISTRICT	Average Weekday Ons	Average Weekday Offs
15th Ave NE & NE 43rd St	60	0	Overlake Park & Ride	133	0
15th Ave NE & NE Campus Pkwy	50	1	Overlake Transit Center	121	2
15th Ave NE & NE 40th St	44	0	SR 520 & NE 40th St	137	4
NE Pacific St & 15th Ave NE	38	3	Yarrow Point Freeway Station	32	13
University of Washington Link Station	120	21	Evergreen Point Freeway Station	9	6
Montlake Blvd E & E Lake Washington Blvd	28	3	Montlake Blvd E & E Shelby St	2	25
Evergreen Point Freeway Station	22	38	University of Washington Link Station	33	213
Yarrow Point Freeway Station	8	13	15th Ave NE & NE Pacific St	6	25
SR 520 & NE 40th St	9	117	15th Ave NE & NE 40th St	5	78
156th Ave NE & NE 40th St	12	54	15th Ave NE & NE 42nd St	4	46
NE 31st St & 156th Ave NE	0	14	15th Ave NE & NE 45th St	0	28
Overlake Park & Ride	0	127	NE 50th St & University Way NE	0	44
Eastbound Total	*390*	*390*	*Westbound Total*	*482*	*482*
			Total	*873*	*873*

Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday

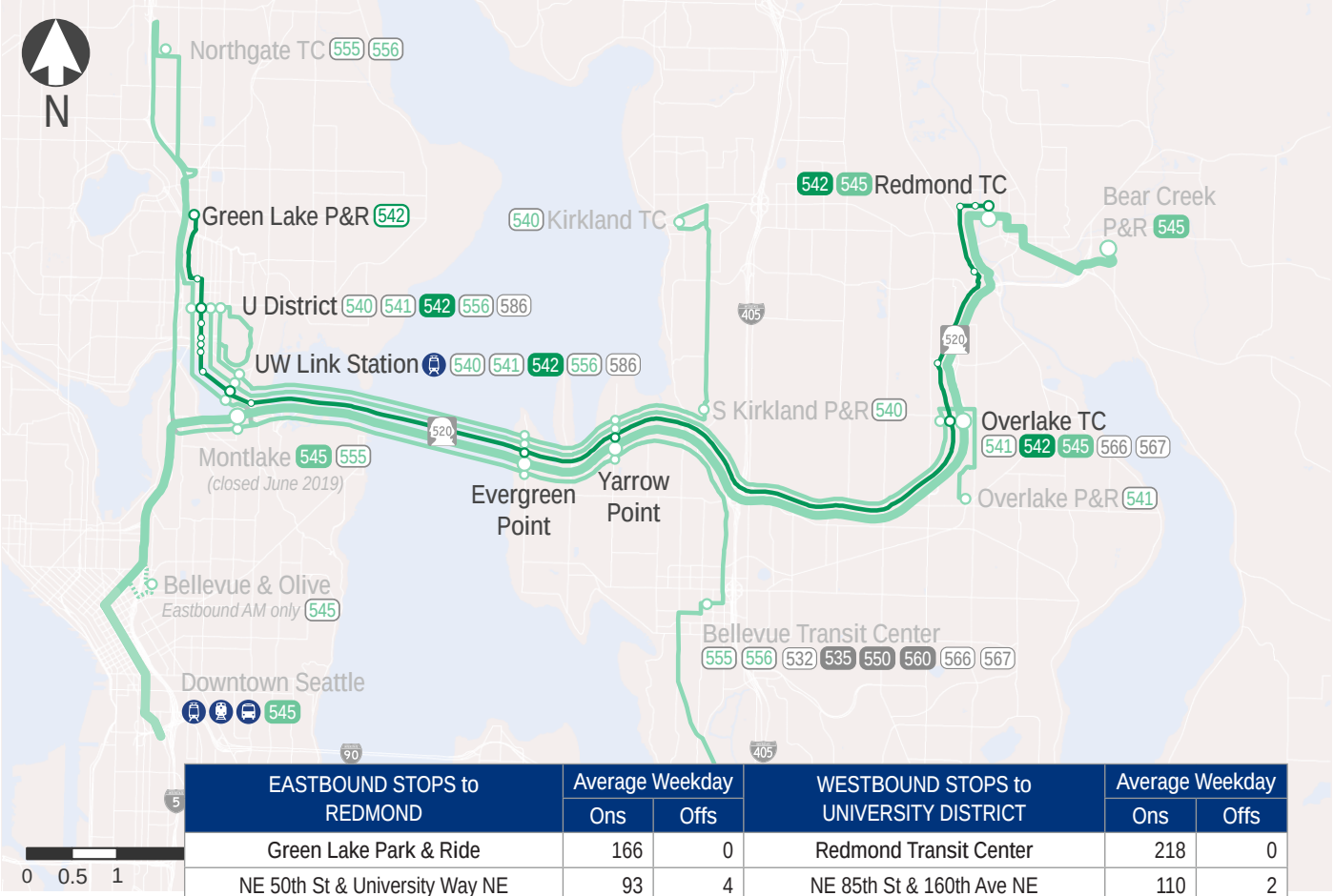


Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



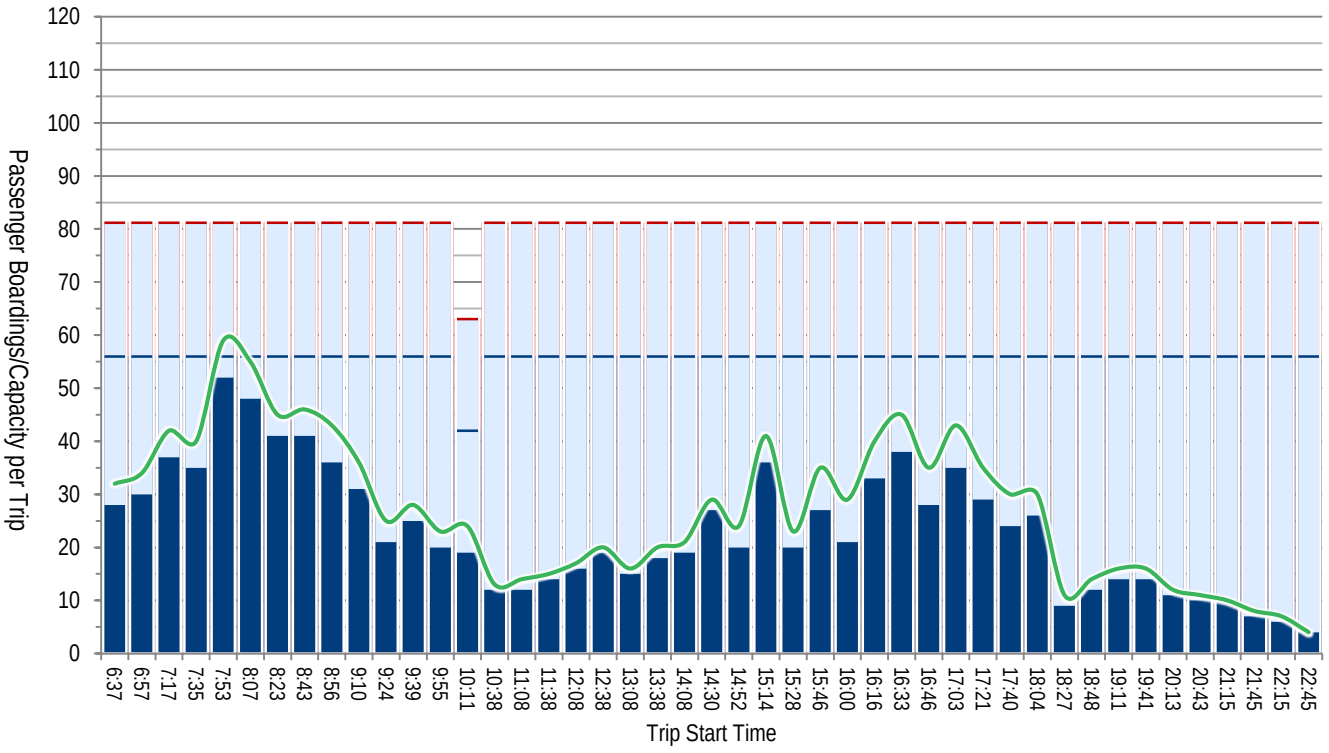
SR 520 Route 542 Redmond - U District

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	2,116	2,206	2,192	2,497
Average Saturday Boardings	N/A	N/A	N/A	524
Average Sunday Boardings	N/A	N/A	N/A	423
Annual Boardings	539,674	560,364	558,979	



EASTBOUND STOPS to REDMOND	Average Weekday Ons	Average Weekday Offs	WESTBOUND STOPS to UNIVERSITY DISTRICT	Average Weekday Ons	Average Weekday Offs
Green Lake Park & Ride	166	0	Redmond Transit Center	218	0
NE 50th St & University Way NE	93	4	NE 85th St & 160th Ave NE	110	2
15th Ave NE & NE 45th St	51	1	154th Ave NE & NE 85th St	43	0
15th Ave NE & NE 43rd St	158	13	West Lake Sammamish & Leary Way	73	1
15th Ave NE & NE Campus Pkwy	168	15	SR 520 & NE 51st St	198	7
15th Ave NE & NE 40th St	122	4	SR 520 & NE 40th St	350	25
NE Pacific St & 15th Ave NE	90	21	Yarrow Point Freeway Station	60	11
University of Washington Link Station	244	74	Evergreen Point Freeway Station	33	10
Montlake Blvd E & E Lake Washington Bl	65	11	Montlake Blvd E & E Shelby St	7	67
SR 520 & Evergreen Point Rd	23	78	University of Washington Link Station	87	398
SR 520 & 92nd Ave NE	12	40	15th Ave NE & NE Pacific St	42	70
SR 520 & NE 40th St	32	409	15th Ave NE & NE 40th St	19	204
SR 520 & NE 51st St	8	149	15th Ave NE & NE 42nd St	16	125
West Lake Sammamish & Leary Way	1	60	15th Ave NE & NE 45th St	1	88
NE 85th St & 154th Ave NE	0	47	NE 50th St & University Way NE	4	131
NE 85th St & 161st Ave NE	1	106	Green Lake Park & Ride	0	121
Redmond Transit Center	0	204			
Eastbound Total	*1,236*	*1,236*	*Westbound Total*	*1,261*	*1,261*
			Total	*2,497*	*2,497*

Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday

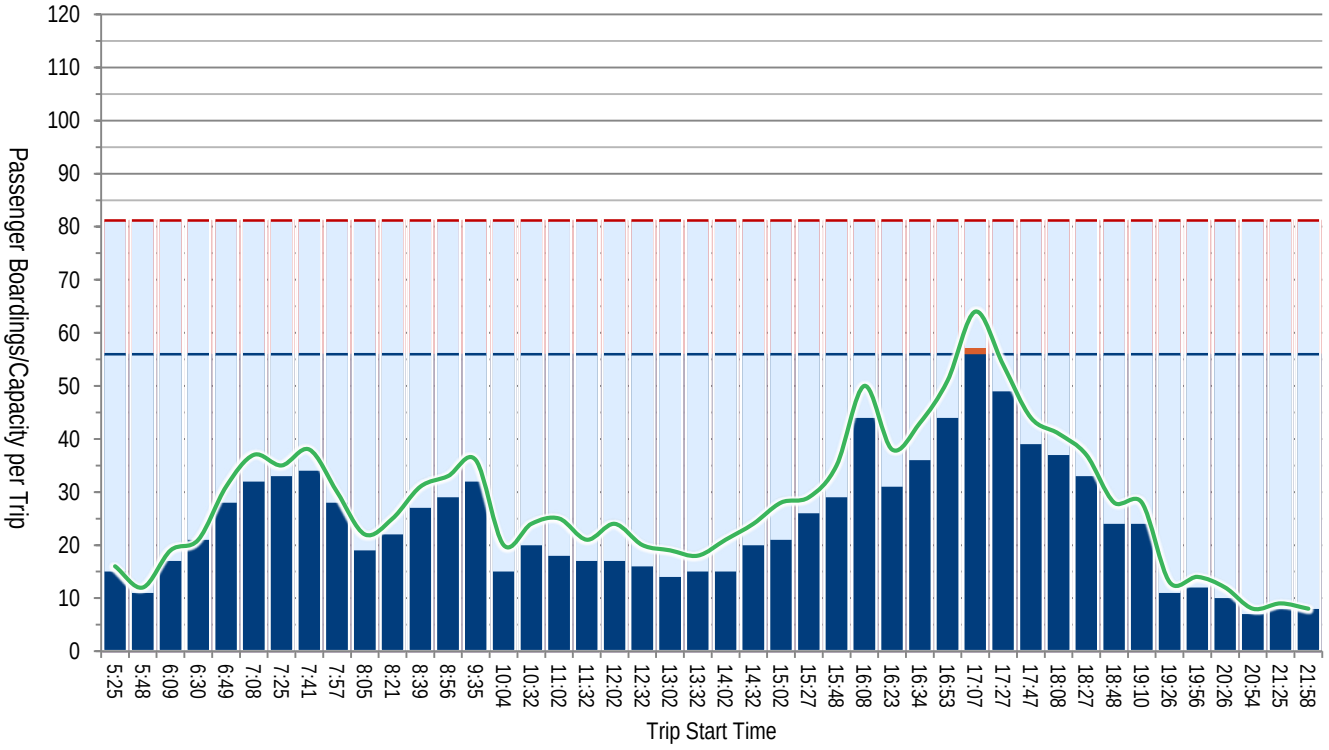


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

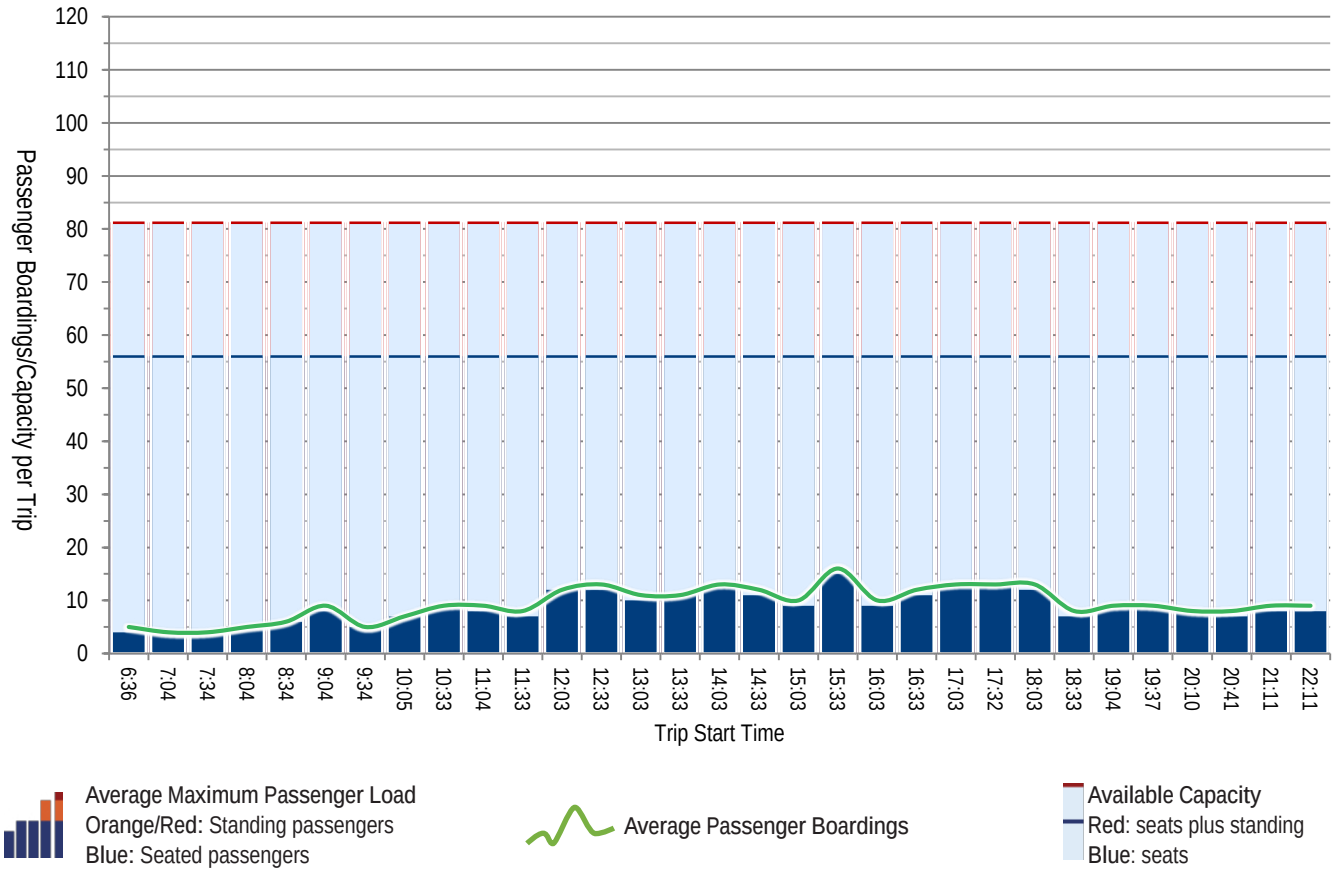
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

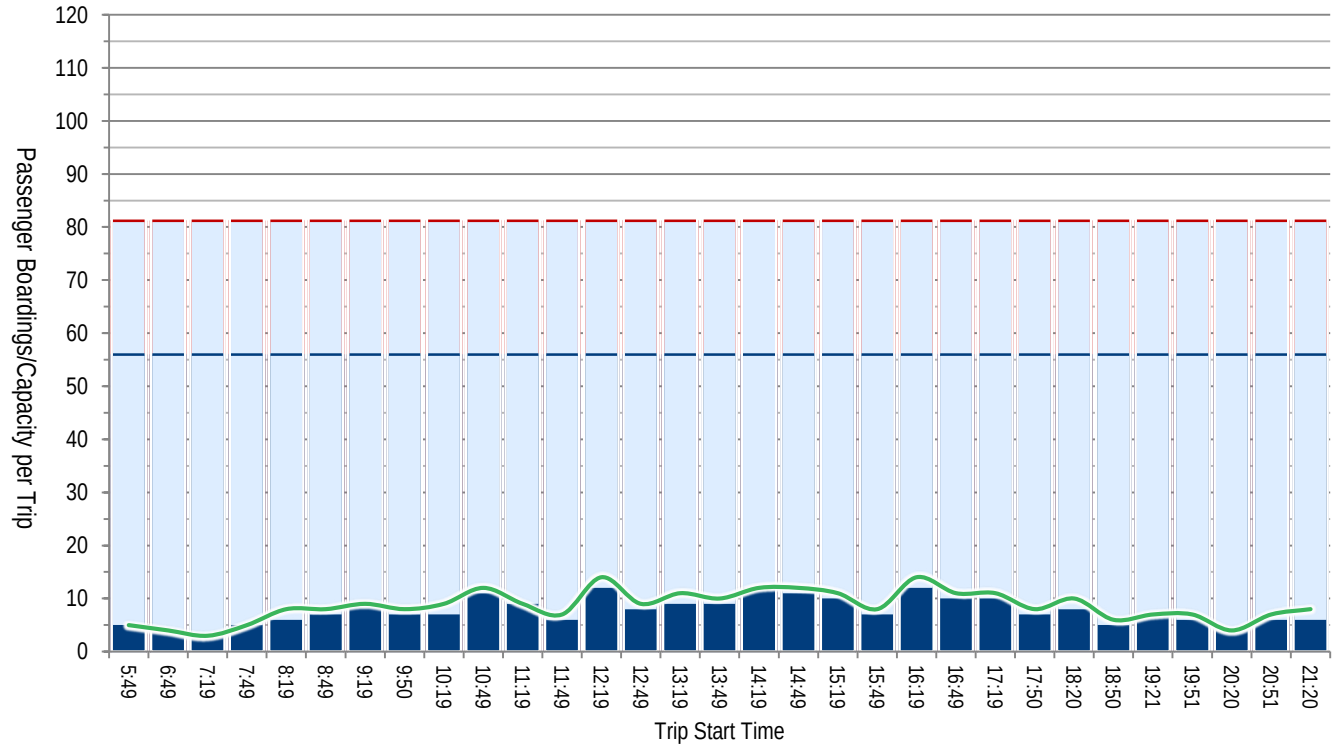
Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



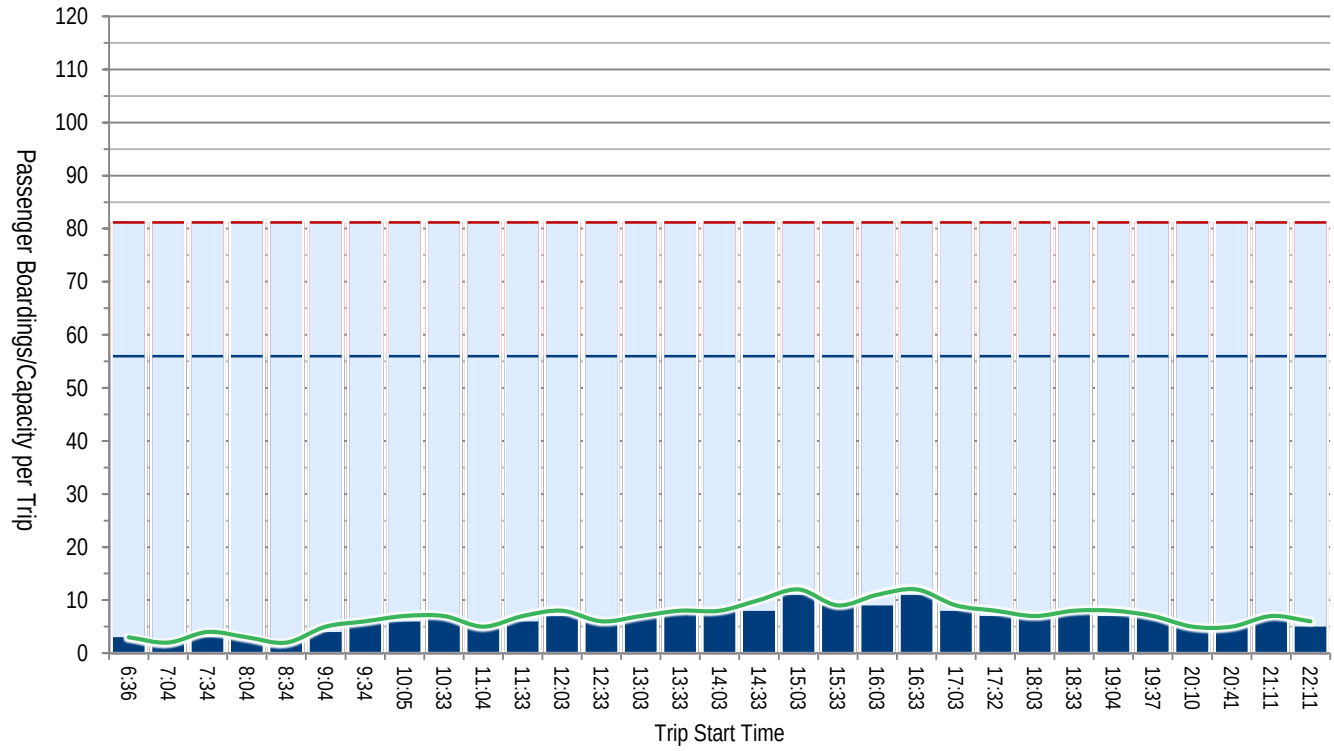
Eastbound Average Trip Ridership & Maximum Passenger Loads — Saturday



Saturday — Westbound Average Trip Ridership & Maximum Passenger Loads



Westbound Average Trip Ridership & Maximum Passenger Loads — Sunday

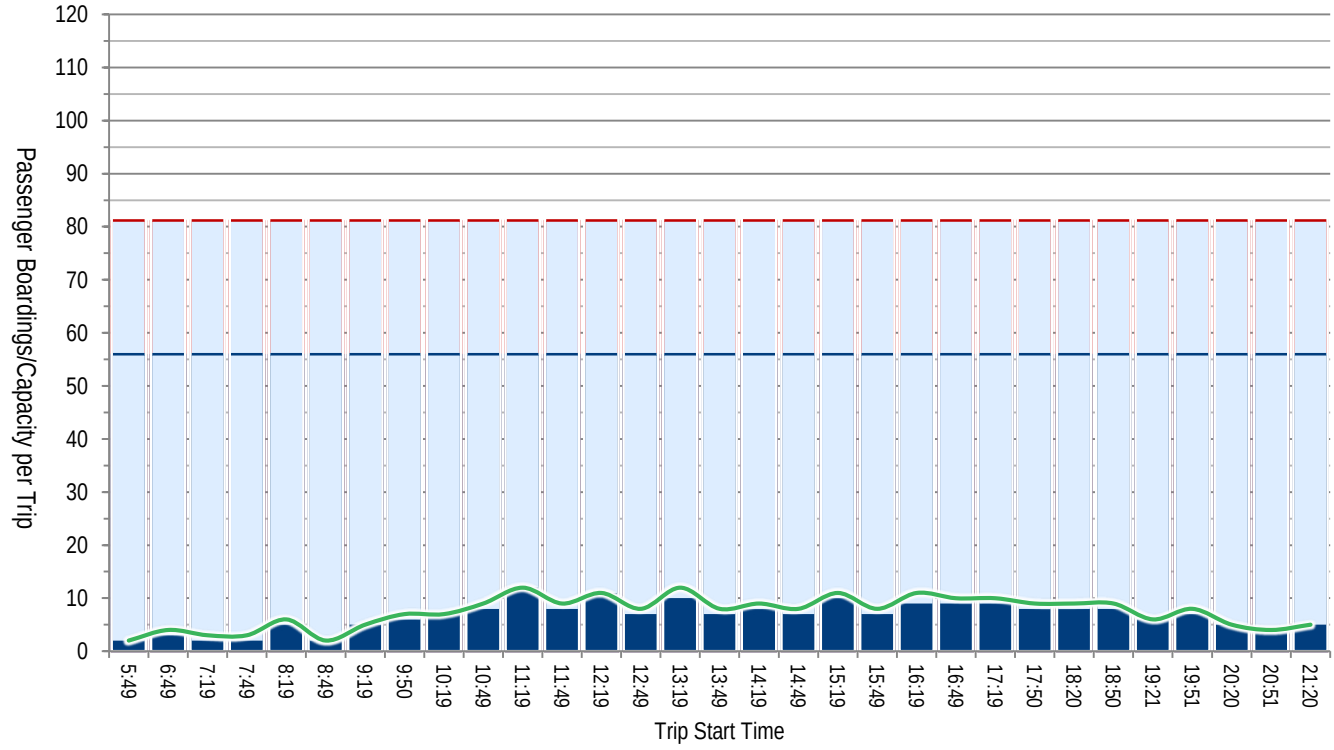


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

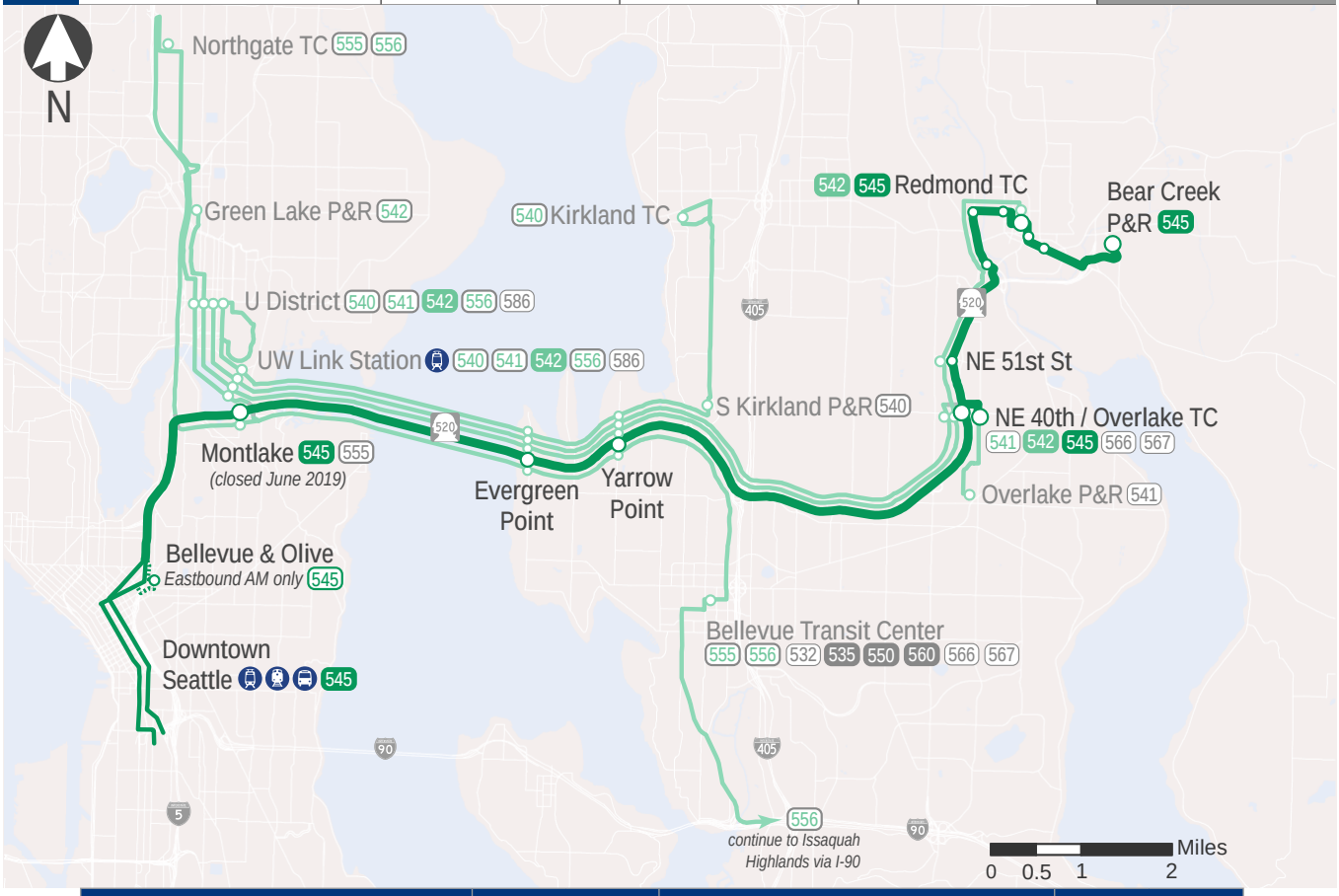
Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Eastbound Average Trip Ridership & Maximum Passenger Loads



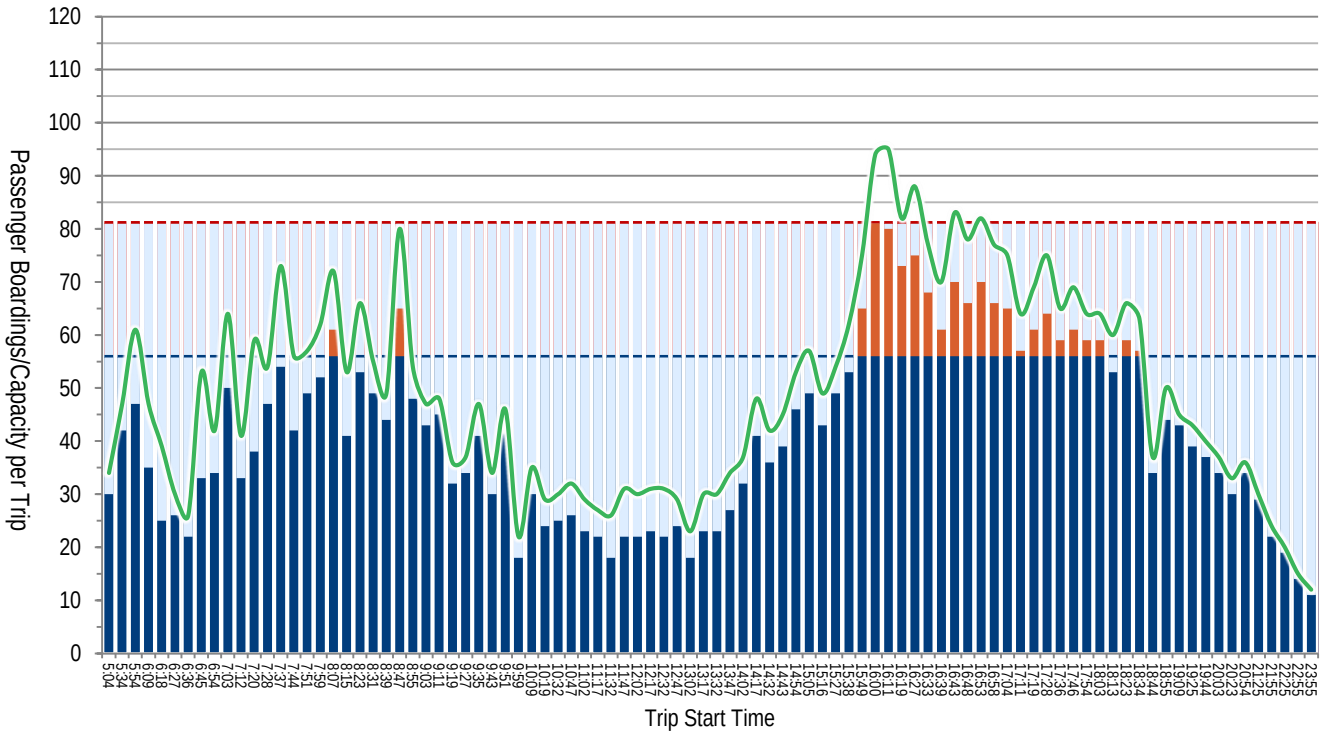
SR 520 Route 545 Redmond - Seattle

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	9,330	9,234	8,702	8,711
Average Saturday Boardings	2,340	2,390	2,242	1,957
Average Sunday Boardings	1,761	1,783	1,666	1,488
Annual Boardings	2,605,320	2,574,790	2,432,200	

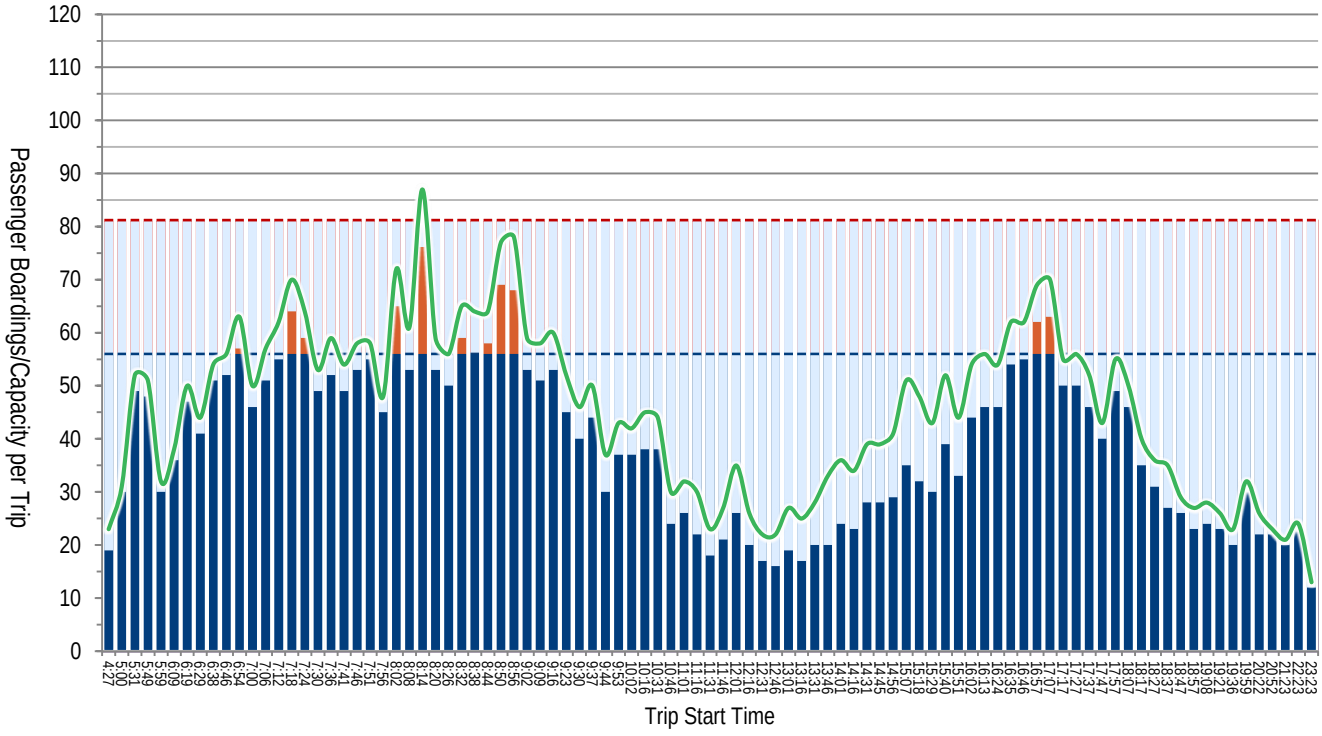


EASTBOUND STOPS to REDMOND	Average Weekday Ons	Average Weekday Offs	WESTBOUND STOPS to SEATTLE	Average Weekday Ons	Average Weekday Offs
6th Ave S & S Atlantic St	91	0	Bear Creek Park & Ride	374	0
4th Ave S & S Jackson St	632	28	NE 76th St & 177th Pl NE	209	17
4th Ave & James St	234	55	NE Redmond Way & NE 79th St	152	9
4th Ave & Madison St	556	102	Redmond Transit Center	682	54
4th Ave & Pike St	1,109	86	NE 85th St & 160th Ave NE	347	26
Olive Way & 8th Ave	725	102	154th Ave NE & NE 85th St	65	3
Olive Way & Boren Ave	212	44	West Lake Sammamish & Leary Way	186	7
Bellevue Ave & E Olive St	476	9	SR 520 Ramp & NE 51st St	416	36
Montlake Freeway Station	197	107	Overlake Transit Center	440	26
Evergreen Point Freeway Station	42	82	SR 520 & NE 40th St	830	97
Yarrow Point Freeway Station	25	81	Yarrow Point Freeway Station	49	25
Sr 520 & NE 40th St	134	1,534	Evergreen Point Freeway Station	38	14
Sr 520 & NE 51st St	32	445	Montlake Freeway Station	41	246
West Lake Sammamish Pkwy NE & Leary Way	7	183	Stewart St & Yale Ave N	63	673
NE 85th St & 154th Ave NE	4	123	Stewart St & 9th Ave	48	452
NE 85th St & 161st Ave NE	16	359	Stewart St & 7th Ave	31	466
Redmond Transit Center	63	551	5th Ave & Pine St	50	760
Cleveland St & 166th Ave NE	10	144	5th Ave & Seneca St	51	379
NE 76th St & 177th Pl NE	3	214	5th Ave & Marion St	26	323
Bear Creek Park & Ride	0	318	5th Ave & Jefferson St	33	123
			5th Ave S & S Jackson St	11	386
			Airport Way S & S Royal Brougham Way	0	24
Eastbound Total	*4,566*	*4,566*	*Westbound Total*	*4,144*	*4,144*
			Total	*8,711*	*8,711*

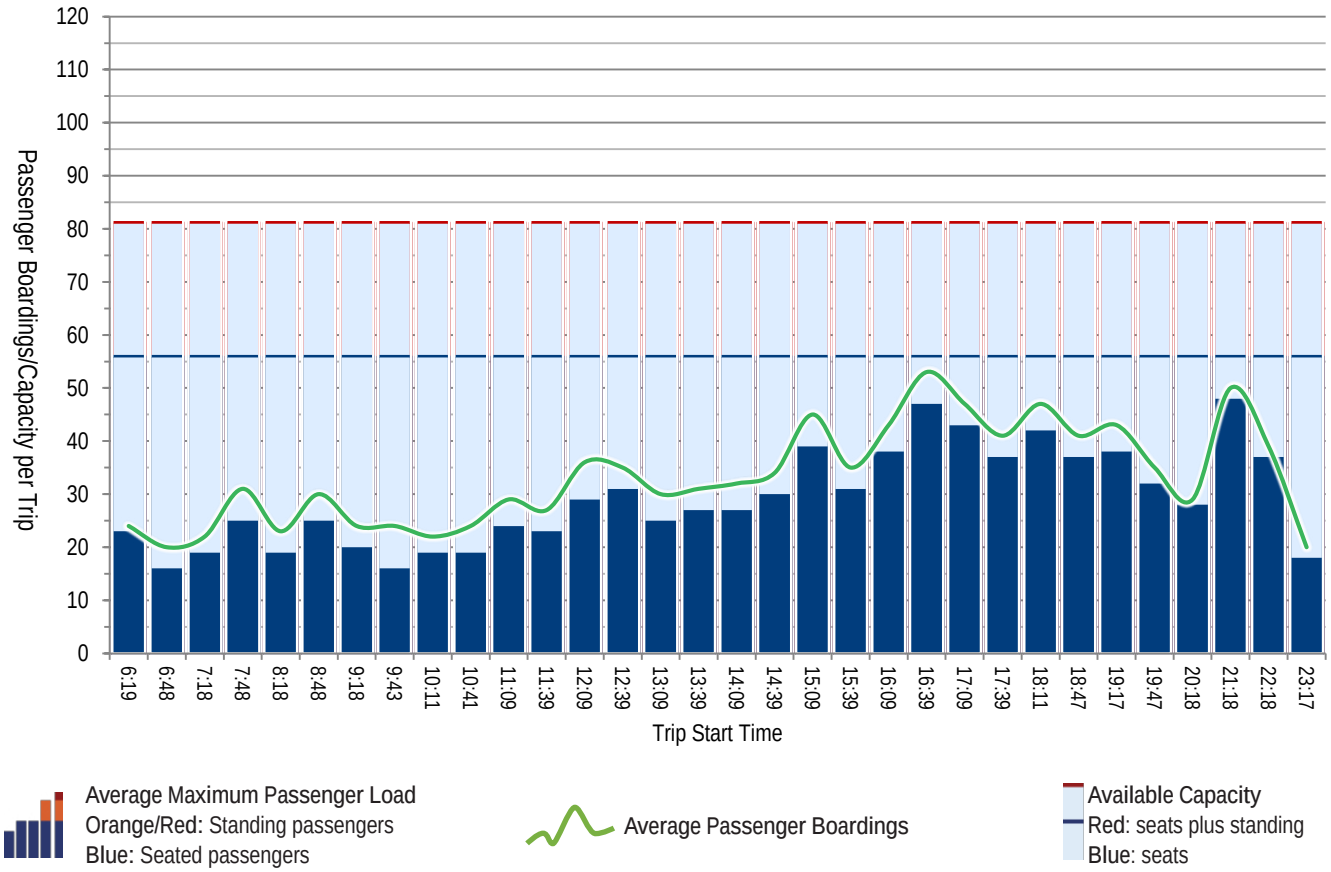
Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday



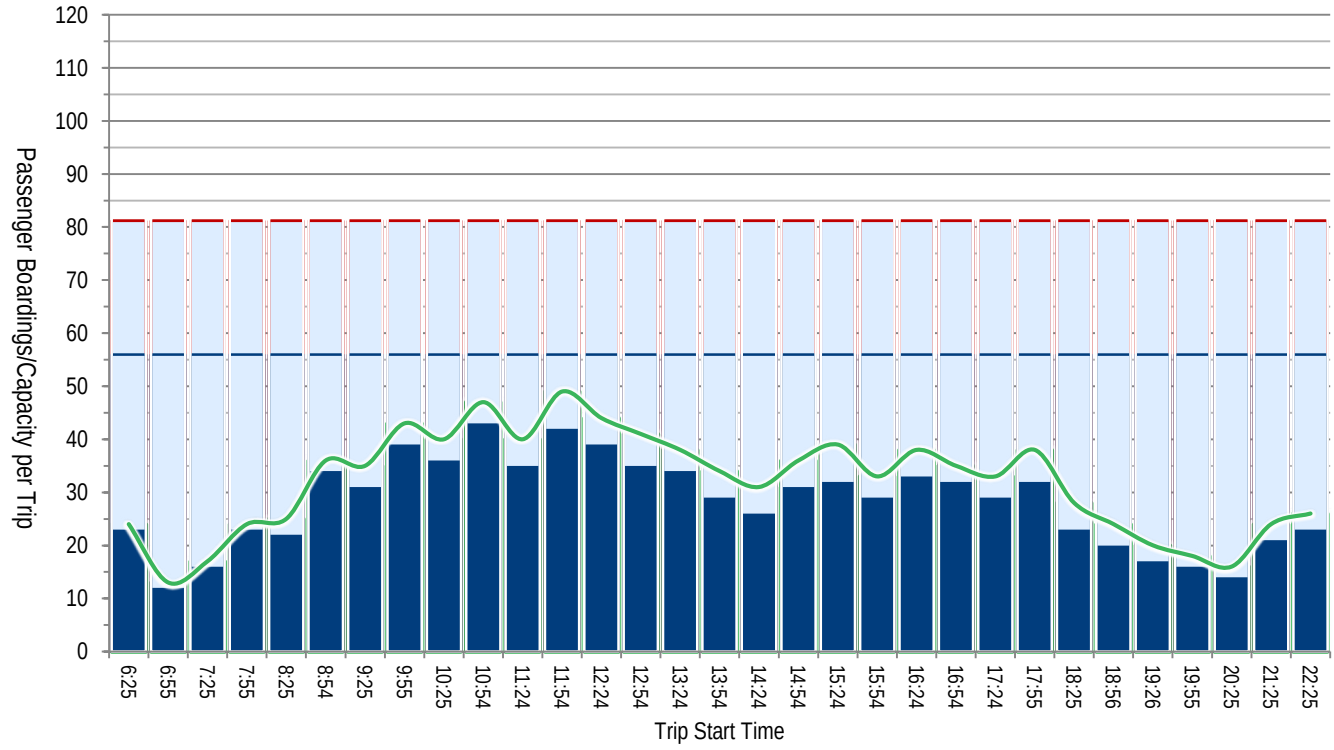
Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



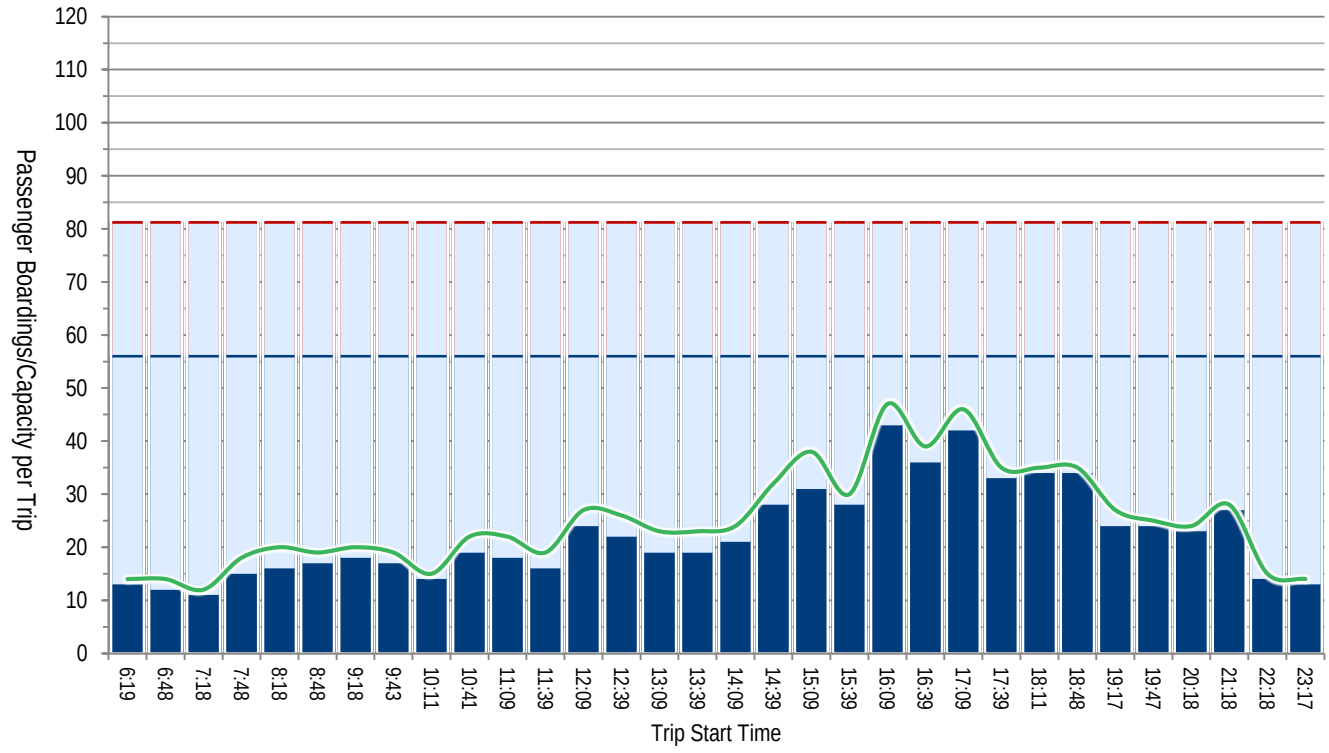
Eastbound Average Trip Ridership & Maximum Passenger Loads — Saturday



Saturday — Westbound Average Trip Ridership & Maximum Passenger Loads



Eastbound Average Trip Ridership & Maximum Passenger Loads — Sunday

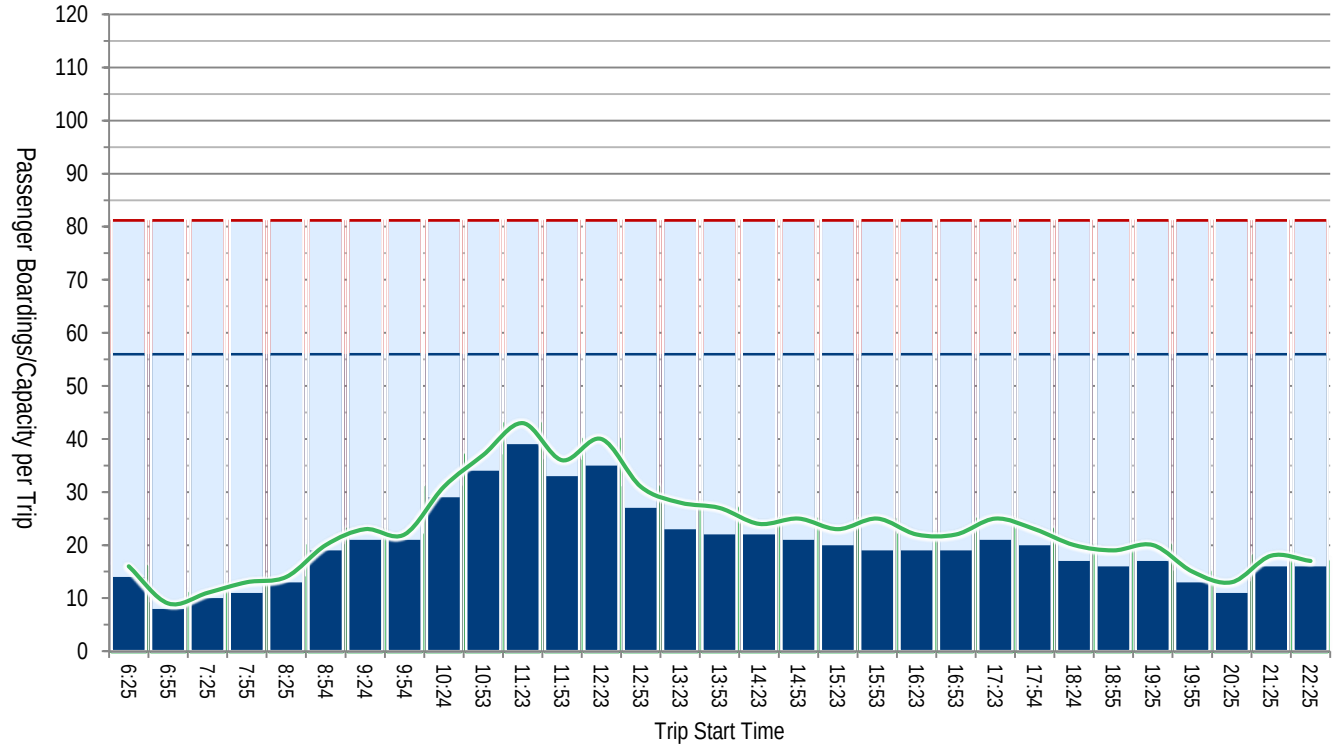


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

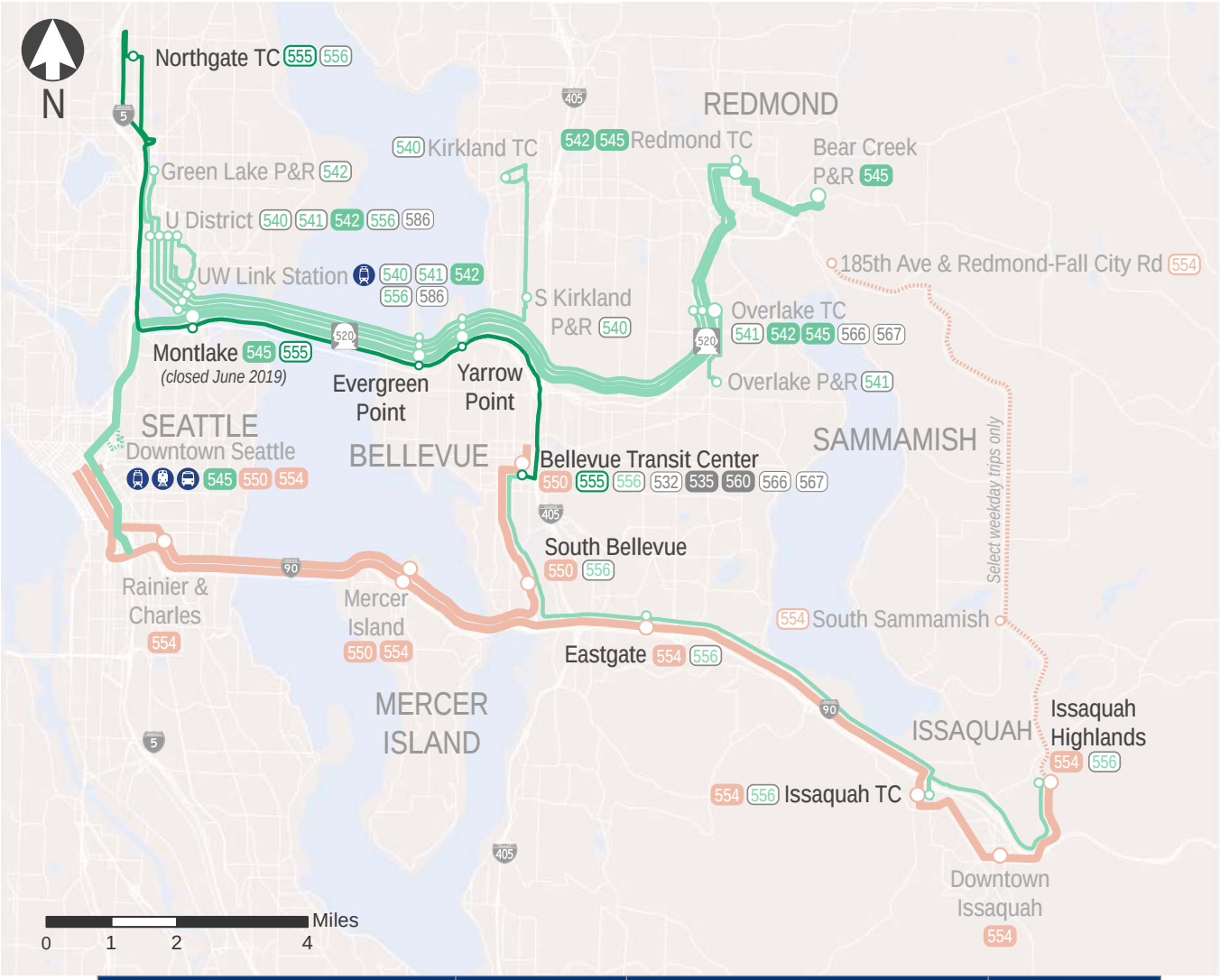
Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Westbound Average Trip Ridership & Maximum Passenger Loads



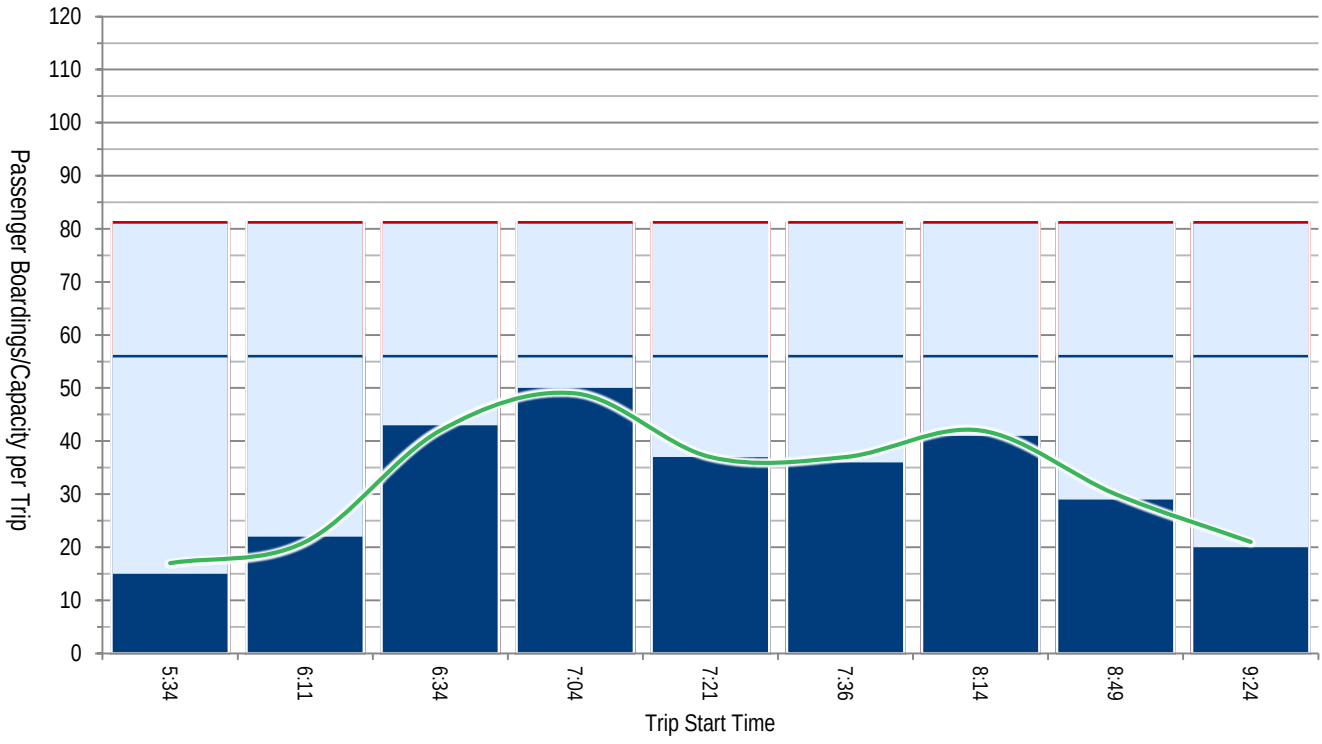
SR 520 Route 555 Northgate - Bellevue

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	742	721	652	473
Average Saturday Boardings	N/A	N/A	N/A	N/A
Average Sunday Boardings	N/A	N/A	N/A	N/A
Annual Boardings	189,334	183,031	166,305	



EASTBOUND STOPS to BELLEVUE	Average Weekday		WESTBOUND STOPS to NORTHGATE	Average Weekday	
	Ons	Offs		Ons	Offs
Northgate Transit Center	267	0	Bellevue Transit Center	163	0
Montlake Freeway Station	18	4	Yarrow Pt Freeway Station	6	9
Evergreen Point Freeway Station	3	8	Evergreen Point Freeway Station	7	6
Yarrow Pt Freeway Station	6	7	Montlake Freeway Station	3	90
Bellevue Transit Center	0	274	Northgate Transit Center	0	74
Eastbound Total	*294*	*294*	*Westbound Total*	*179*	*179*
			Total	*473*	*473*

Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday

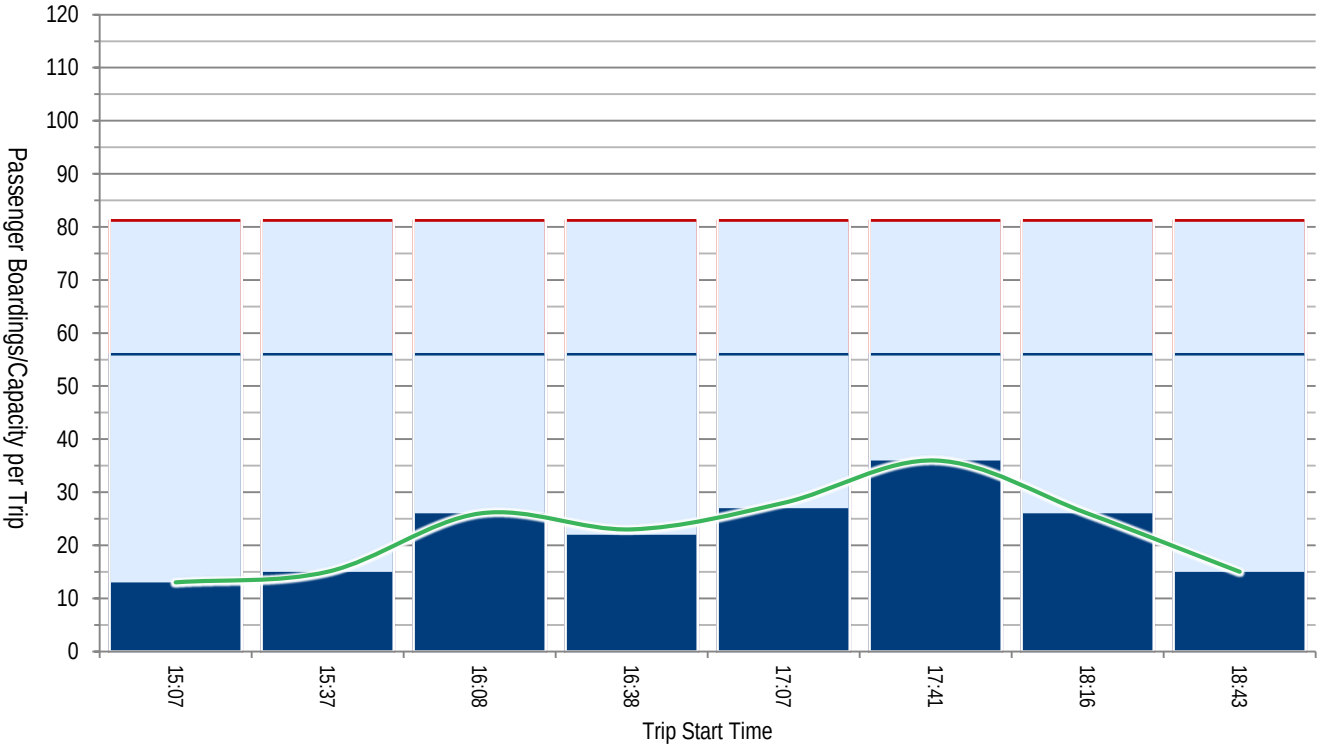


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

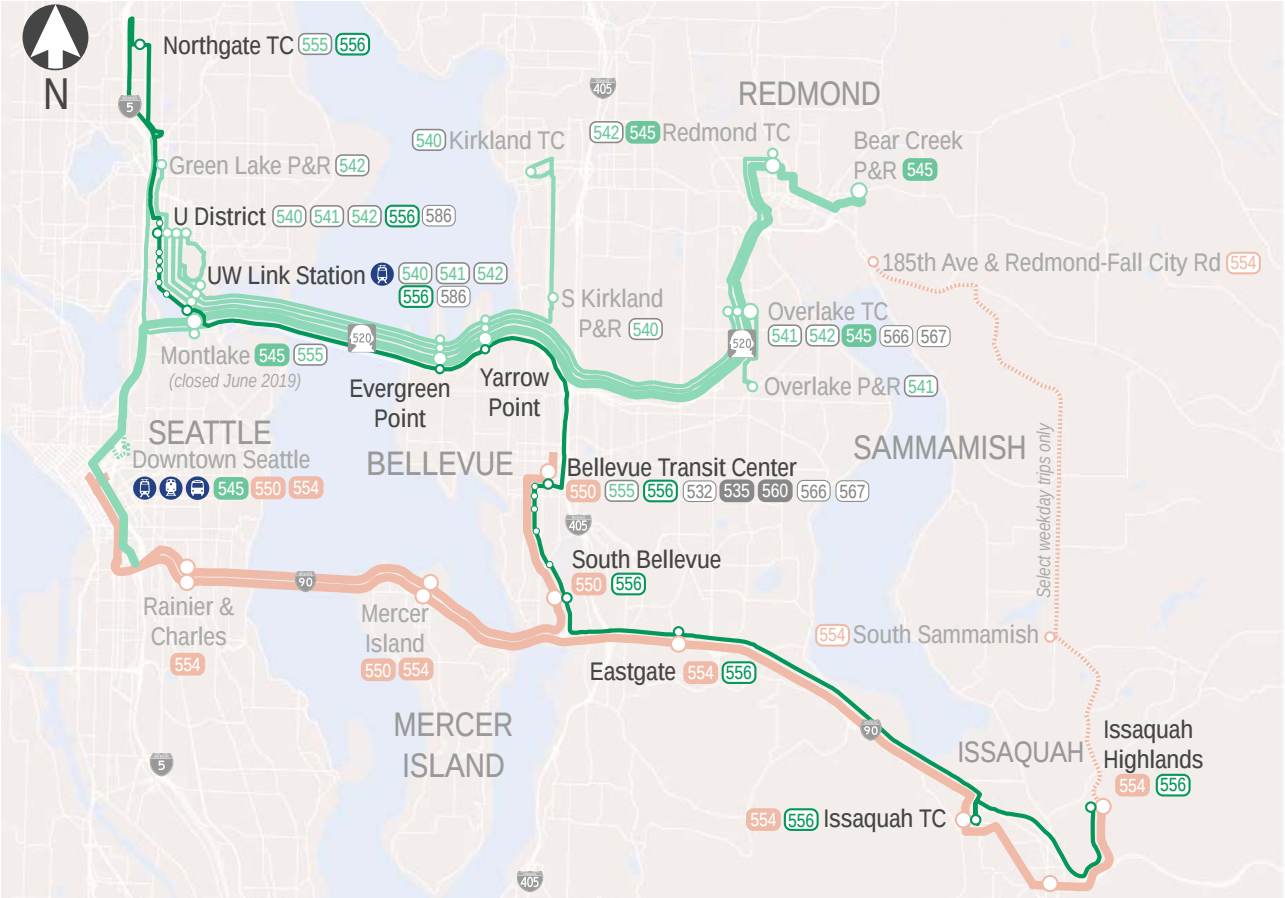
Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



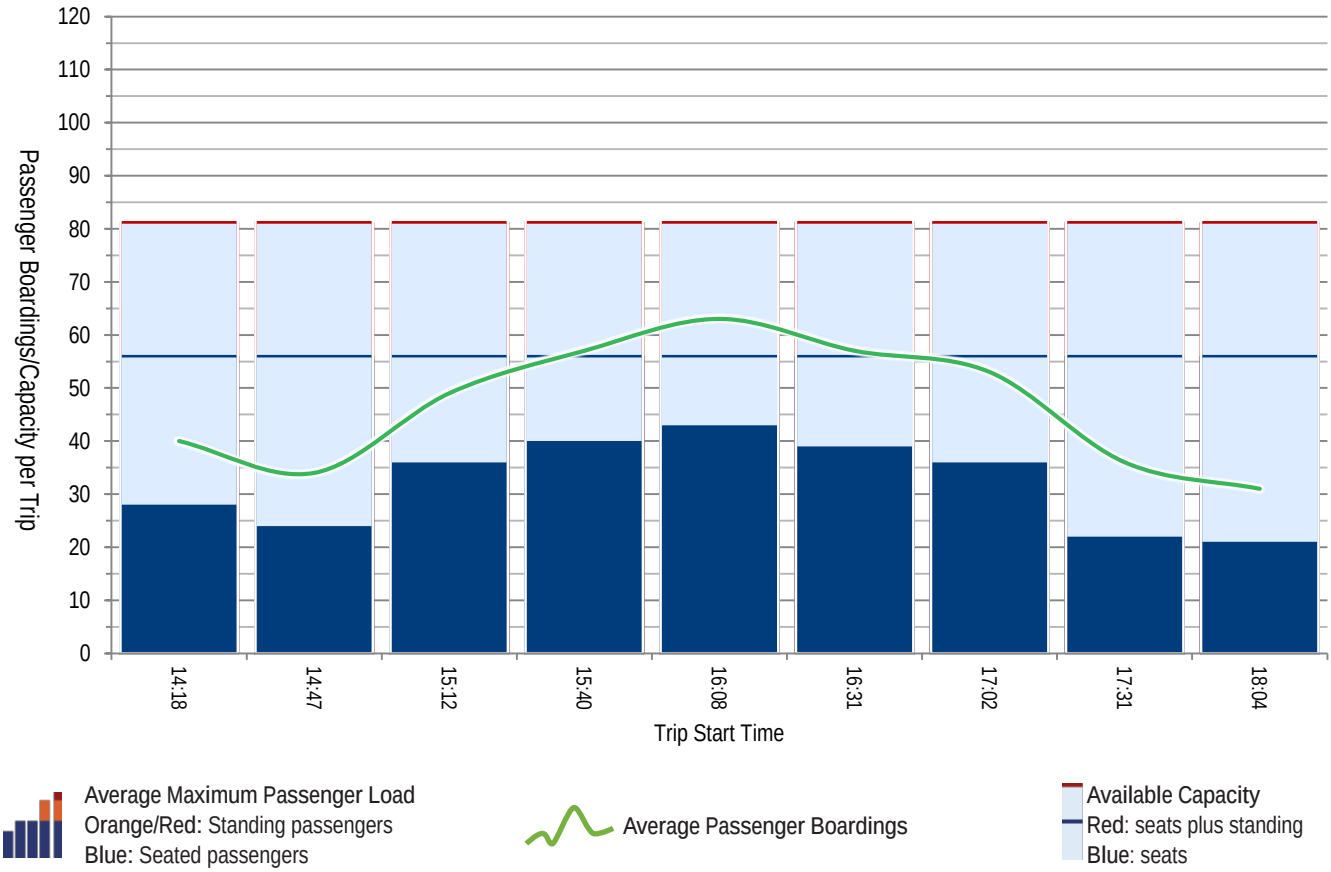
SR 520 Route 556 Issaquah - Northgate

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	825	829	774	824
Average Saturday Boardings	N/A	N/A	N/A	N/A
Average Sunday Boardings	N/A	N/A	N/A	N/A
Annual Boardings	210,471	210,443	197,334	

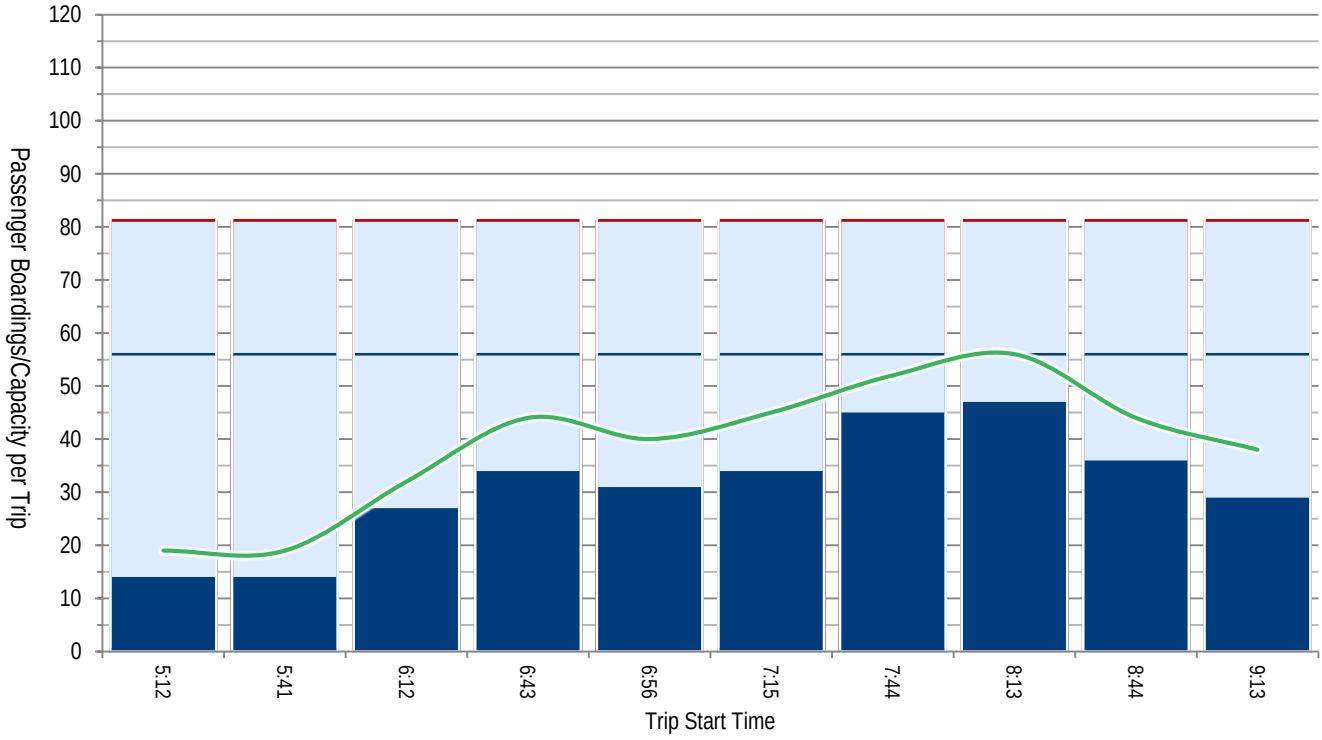


EASTBOUND STOPS to ISSAQUAH	Average Weekday Ons	Average Weekday Offs	WESTBOUND STOPS to NORTHGATE	Average Weekday Ons	Average Weekday Offs
Northgate Transit Center	36	0	Issaquah Highlands Park & Ride	105	0
NE 50th St & University Way	7	5	9th Ave & NE Ellis Dr	33	2
15th Ave & NE 45th St	12	2	Issaquah Transit Center	120	2
15th Ave & NE 43rd St	20	3	Eastgate Freeway Station	44	8
15th Ave & NE Campus Pkwy	32	2	South Bellevue Park & Ride	1	1
15th Ave & NE 40th St	18	1	Bellevue Way SE & SE 16th St	7	0
Pacific St & 15th Ave	27	1	Bellevue Way SE & SE 10th St	2	0
University of Washington Link Station	54	24	Bellevue Way SE & SE 3rd St	9	2
Montlake Freeway Station	6	2	Bellevue Way NE & Main St	5	4
Evergreen Point Freeway Station	4	19	NE 4th St & 105th Ave NE	4	66
Yarrow Point Freeway Station	4	5	Bellevue Transit Center	28	133
Bellevue Transit Center	118	47	Yarrow Point Freeway Station	14	2
108th Ave NE & NE 2nd St	33	4	Evergreen Point Freeway Station	6	0
108th Ave NE & Main St	29	9	Montlake Blvd & Shelby St	1	2
Bellevue Way SE & Main St	3	4	University of Washington Link Station	15	60
Bellevue Way SE & SE 3rd St	3	4	Pacific St & 15th Ave	1	22
Bellevue Way SE & SE 11th St	0	1	15th Ave & NE 40th St	2	39
Bellevue Way SE & SE 16th St	0	3	15th Ave & NE 42nd St	1	17
South Bellevue Park & Ride	1	2	15th Ave & NE 45th St	0	13
Eastgate Freeway Station	15	36	NE 50th St & University Way	2	6
Issaquah Transit Center	4	113	Northgate Transit Center	0	19
Highlands Dr & NE Ellis Dr	0	40			
Issaquah Highlands Park & Ride	0	98			
Eastbound Total	*426*	*426*	*Westbound Total*	*399*	*399*
			Total	*824*	*824*

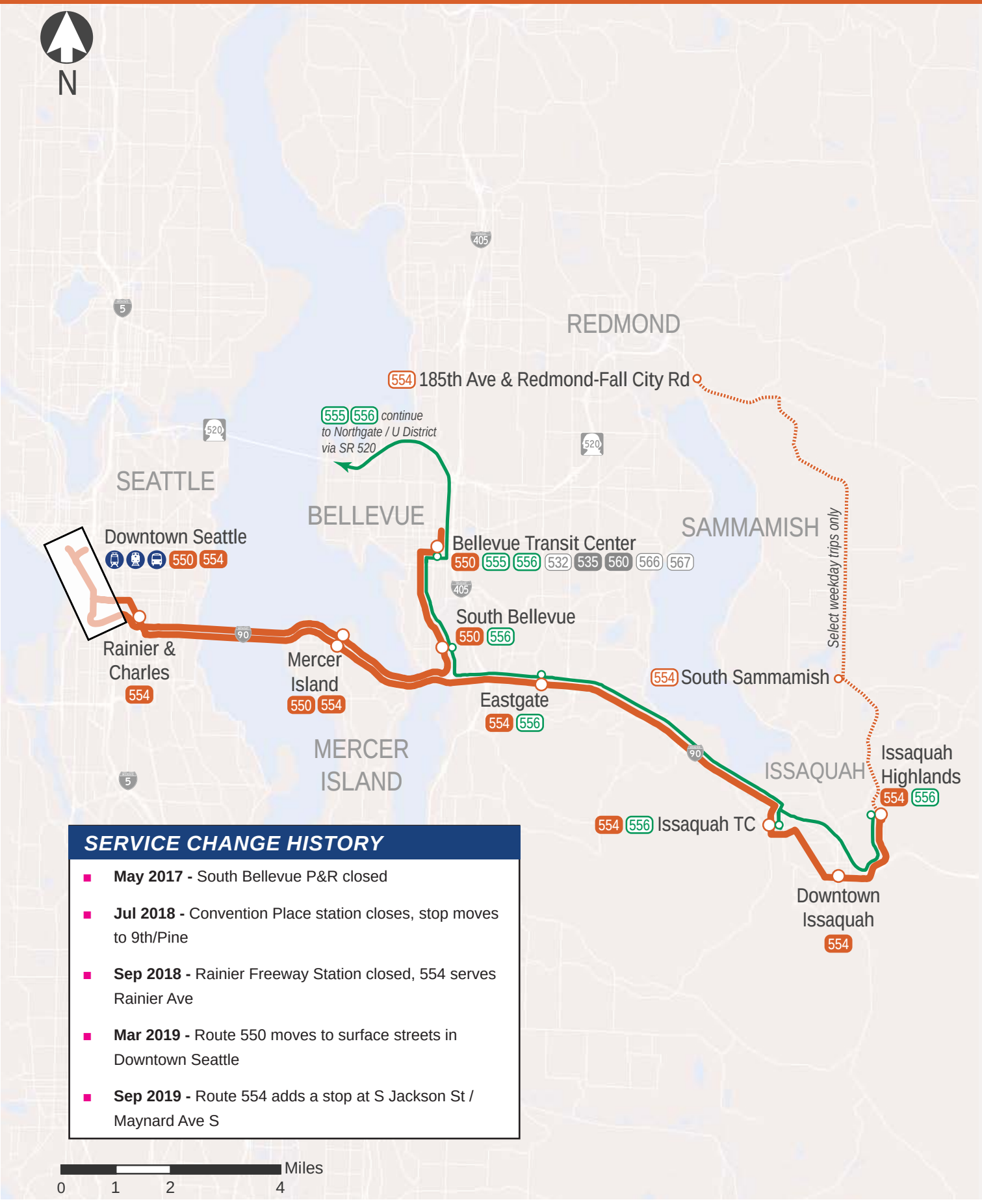
Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday



Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



I-90



SERVICE CHANGE HISTORY

- **May 2017 -** South Bellevue P&R closed
- **Jul 2018 -** Convention Place station closes, stop moves to 9th/Pine
- **Sep 2018 -** Rainier Freeway Station closed, 554 serves Rainier Ave
- **Mar 2019 -** Route 550 moves to surface streets in Downtown Seattle
- **Sep 2019 -** Route 554 adds a stop at S Jackson St / Maynard Ave S

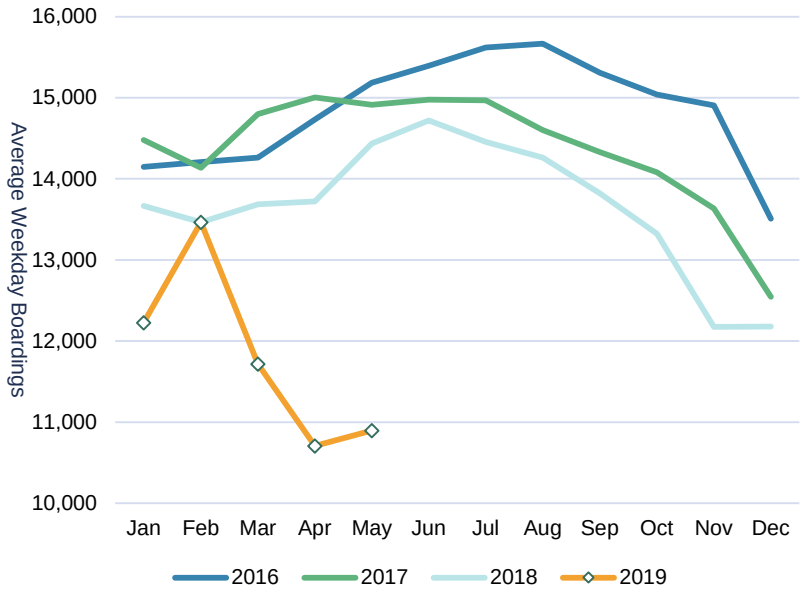
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span
Weekday	East	550	15 (6a–7a) · 10 (7a–8a) · 15 (8a–3p) · 5 - 10 (3p–6p) · 15 (6p–7p) · 30 (7p–1a)
		554	30 (5a–6a) · 20 (6a–3p) · 15 (3p–6p) · 30 (6p–7p) · 60 (7p–1a)
		556	30 (3p–6p)
	West	550	30 (5a–6a) · 5 - 10 (6a–7a) · 15 (7a–3p) · 10 (3p–6p) · 15 (6p–7p) · 30 (7p–1a)
		554	30 (5a–6a) · 15 (6a–7a) · 20 (7a–3p) · 30 (3p–6p) · 60 (7p–1a)
		556	30 (5a–6a)

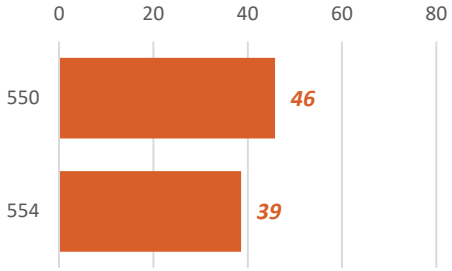
	Direction	Route	Frequency & Span
Sat	East	550	30 (6a–7a) · 15 (7a–6p) · 30 (6p–1a)
		554	60 (6a–7a) · 30 (7a–6p) · 60 (6p–1a)
	West	550	30 (6a–7a) · 15 (7a–6p) · 30 (6p–1a)
		554	60 (6a–7a) · 30 (7a–6p) · 60 (6p–1a)

	Direction	Route	Frequency & Span
Sun	East	550	30 (6a–1a)
		554	60 (6a–7a) · 30 (7a–6p) · 60 (6p–1a)
	West	550	30 (6a–1a)
		554	60 (6a–7a) · 30 (7a–6p) · 60 (6p–1a)

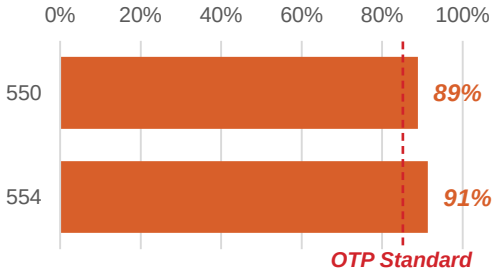
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

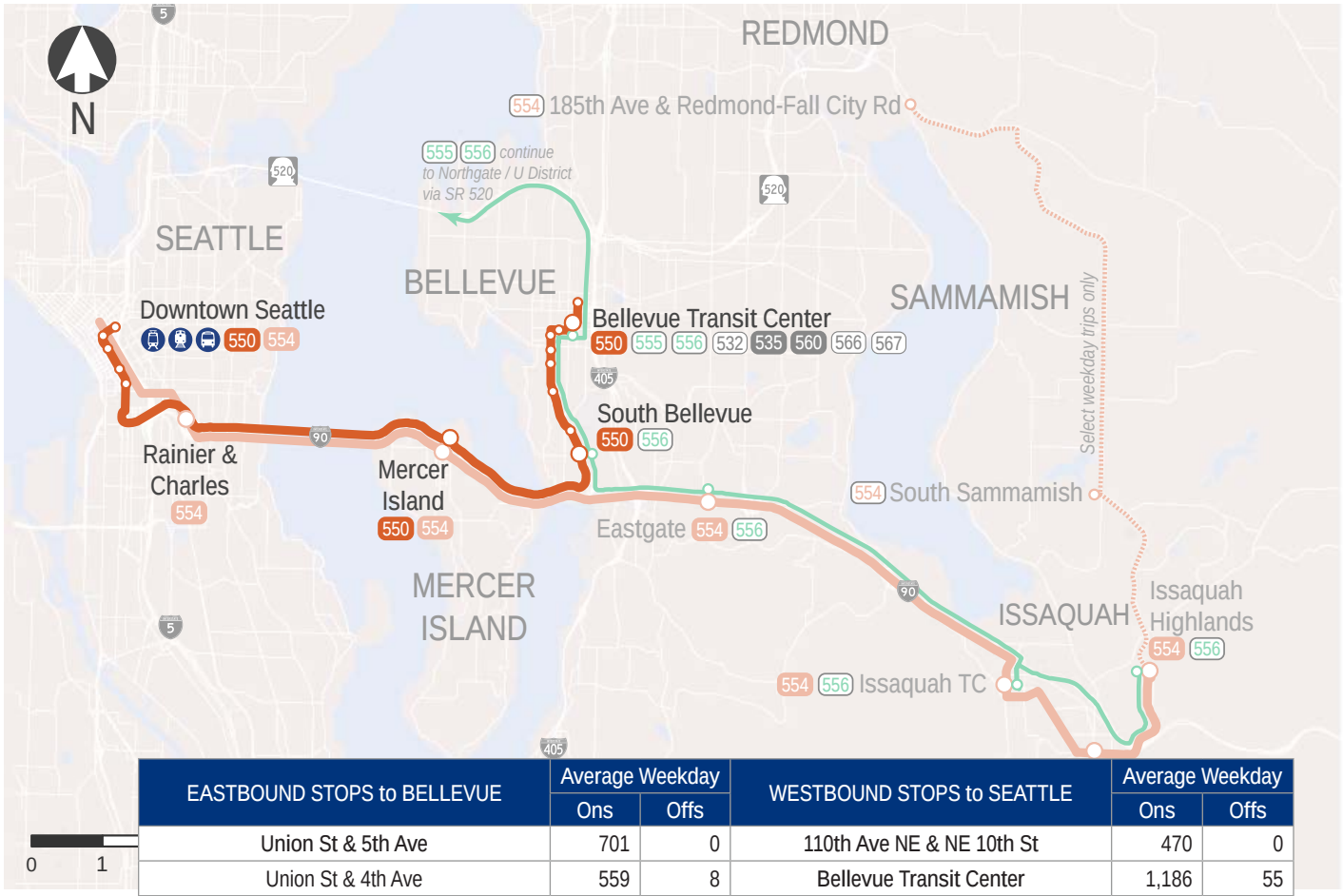
- Route 550/554 - Evaluate travel time with new alignments and revise as needed

LONG TERM CORRIDOR OUTLOOK

- **2023 –** East Link opens, connecting Redmond to Seattle via Bellevue
- **2041 –** Issaquah - South Kirkland Link opens

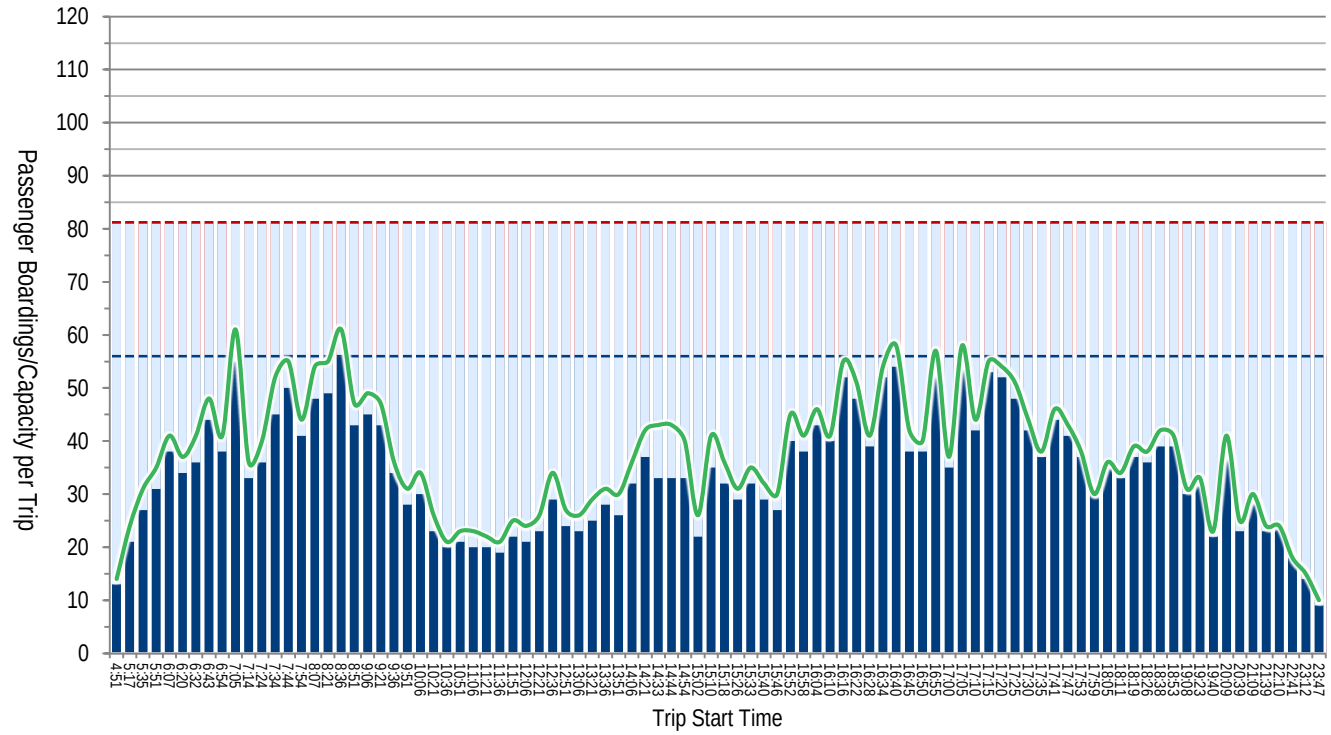
I-90 Route 550 Bellevue - Seattle

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	**10,816**	**10,269**	**9,760**	**7,185**
	Average Saturday Boardings	**4,325**	**4,331**	**4,013**	**2,862**
	Average Sunday Boardings	**2,808**	**2,735**	**2,604**	**1,953**
	Annual Boardings	**3,151,998**	**2,998,662**	**2,848,492**	

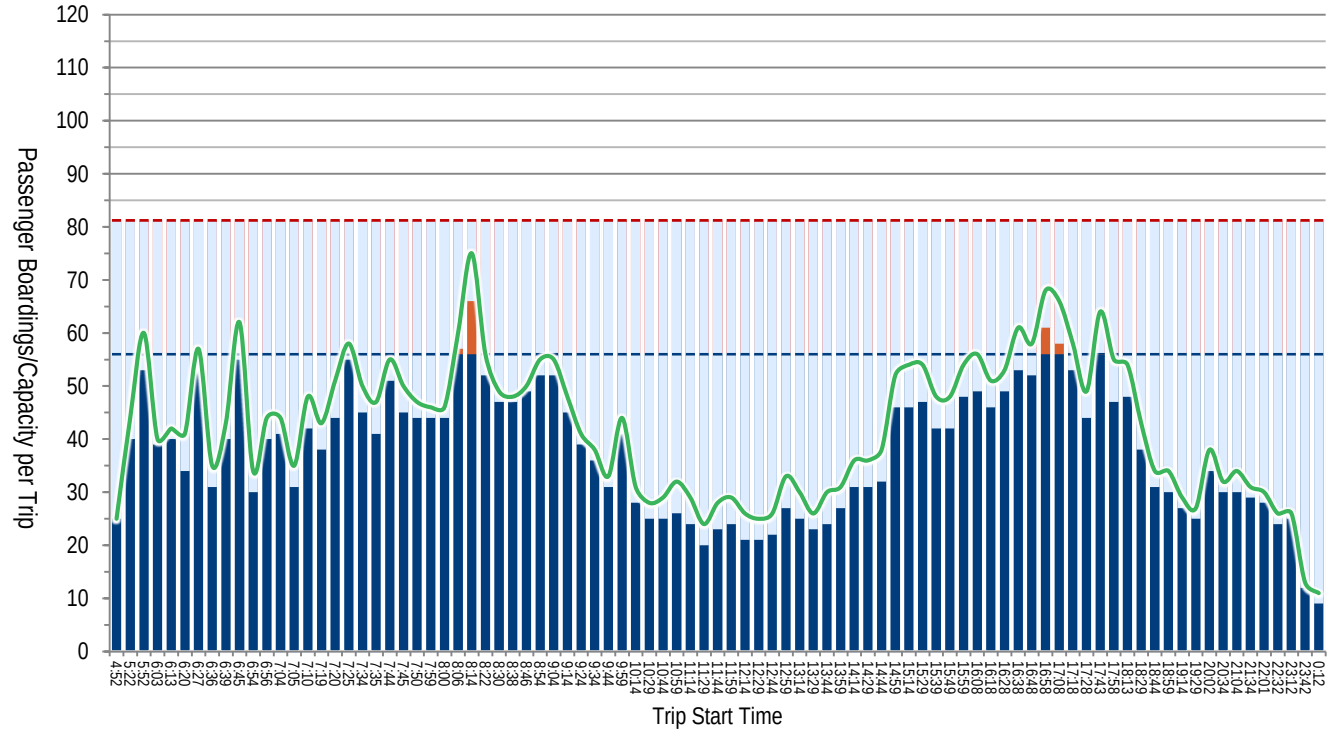


EASTBOUND STOPS to BELLEVUE	Average Weekday		WESTBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs		Ons	Offs
Union St & 5th Ave	701	0	110th Ave NE & NE 10th St	470	0
Union St & 4th Ave	559	8	Bellevue Transit Center	1,186	55
2nd Ave & Seneca St	623	8	NE 4th St & 108th Ave	206	4
2nd Ave & Cherry St	368	5	Bellevue Way NE & NE 4th St	349	25
2nd Ave Ext S & Yesler Way	747	12	Bellevue Way SE & Main St	233	28
Mercer Island Park & Ride (80th Ave SE)	191	833	Bellevue Way & SE 3rd St	104	42
South Bellevue Park & Ride (112th Ave SE)	7	77	Bellevue Way & SE 11th St	44	15
Bellevue Way NE & SE 16th St	21	112	Bellevue Way & SE 16th St	105	28
Bellevue Way NE & SE 10th St	11	58	South Bellevue Park & Ride (112th Ave SE)	88	14
Bellevue Way NE & SE 3rd St	78	108	Mercer Island Park & Ride (80th Ave SE)	812	173
Bellevue Way NE & Main St	28	213	4th Ave & S Jackson St	127	911
NE 4th St & 105th Ave	33	539	4th Ave & Washington St	33	276
Bellevue Transit Center	21	1,012	4th Ave & Cherry St	15	422
110th Ave NE & NE 10th St	0	403	4th Ave & Seneca St	7	571
			4th Ave & Union St	10	585
			Pike St & 6th Ave	7	406
			Pike St & Convention Pl	0	242
Eastbound Total	*3,387*	*3,387*	*Westbound Total*	*3,797*	*3,797*
			Total	*7,185*	*7,185*

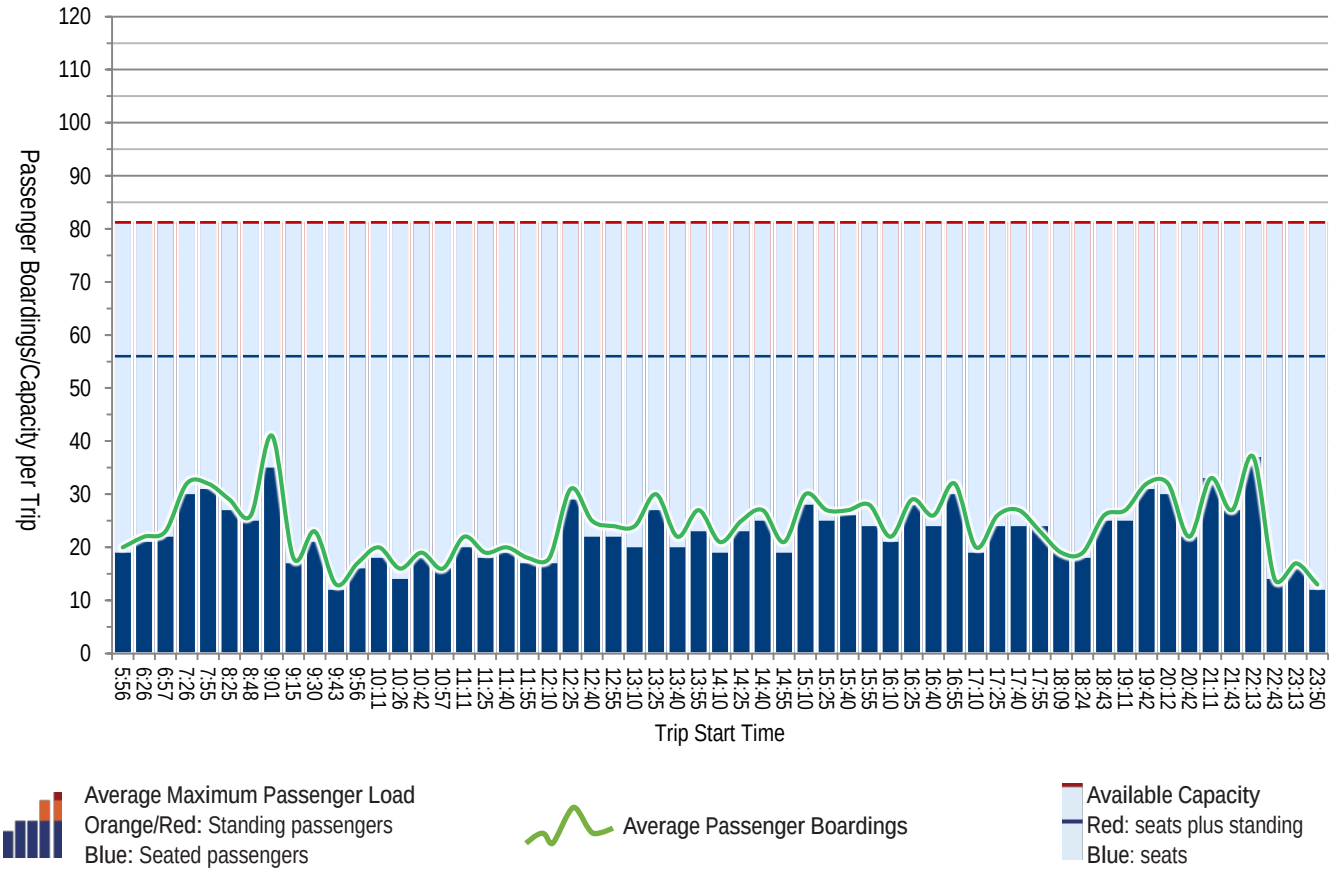
Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday



Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



Eastbound Average Trip Ridership & Maximum Passenger Loads — Saturday

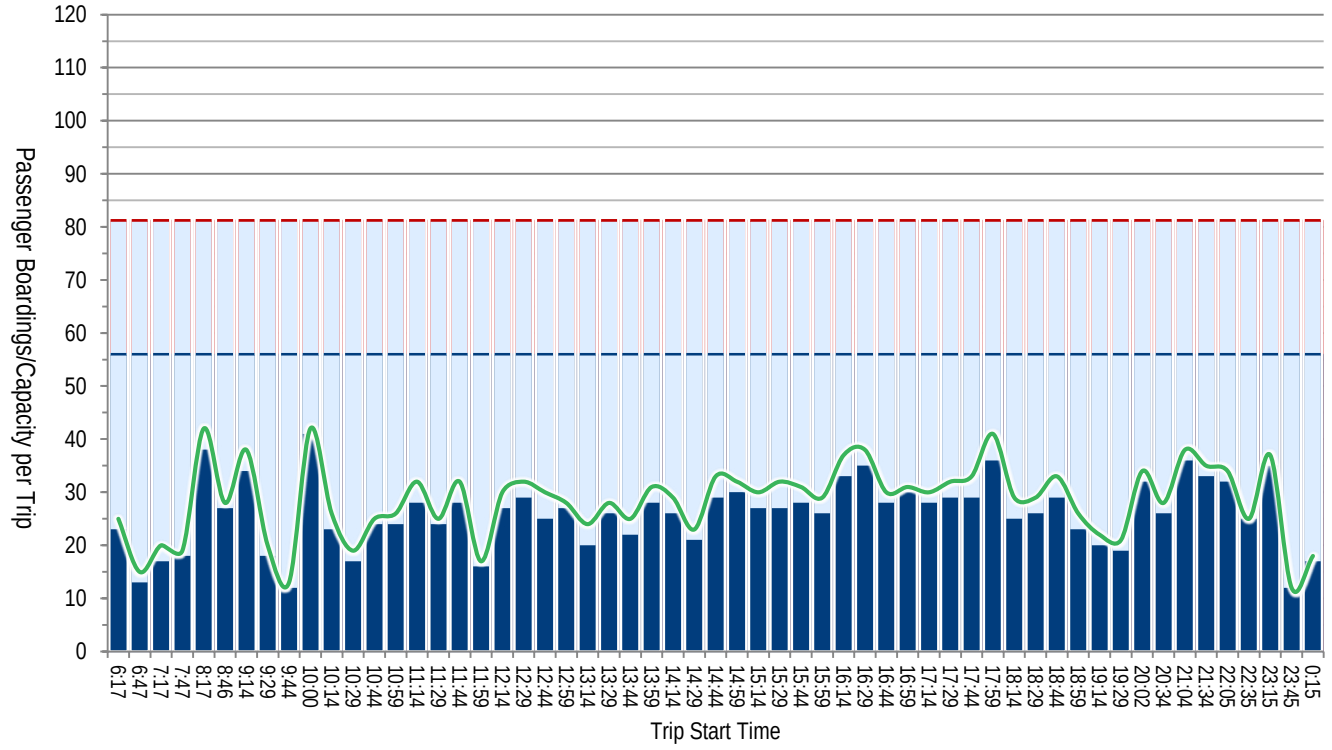


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

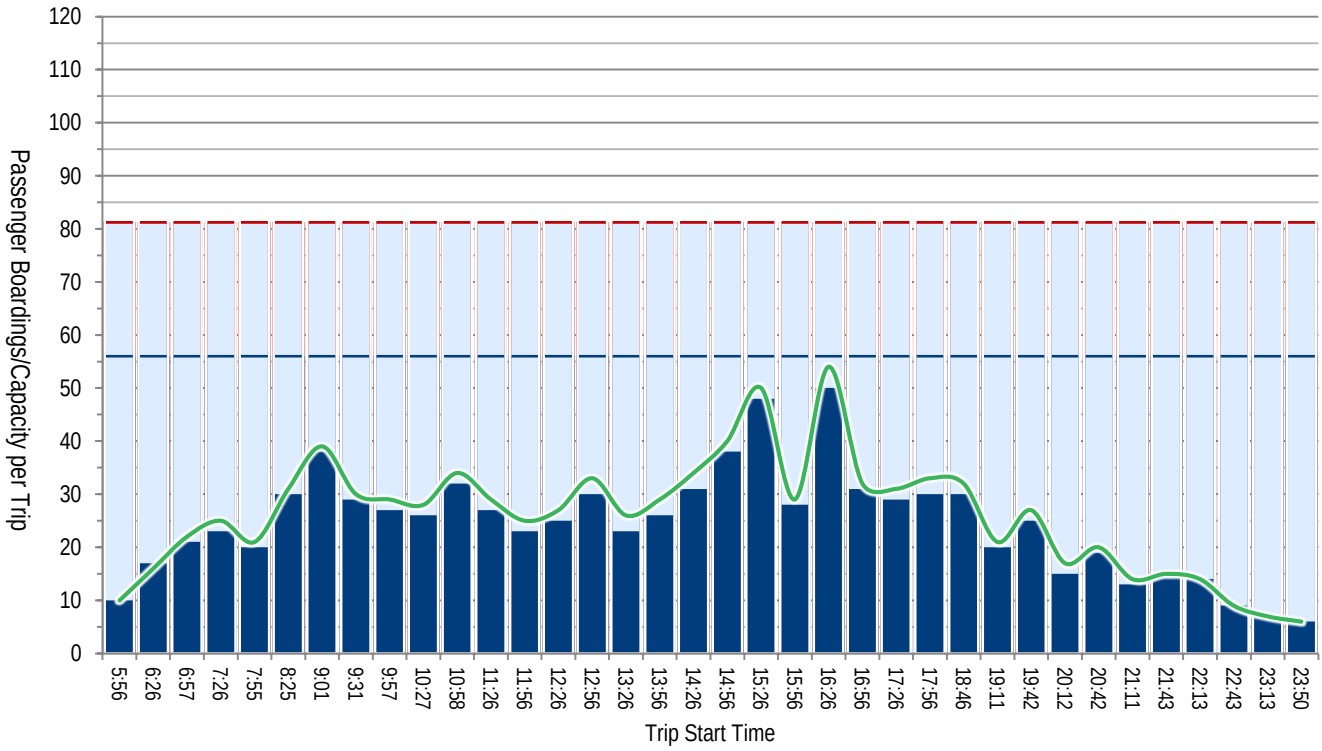
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Saturday — Westbound Average Trip Ridership & Maximum Passenger Loads



Eastbound Average Trip Ridership & Maximum Passenger Loads — Sunday

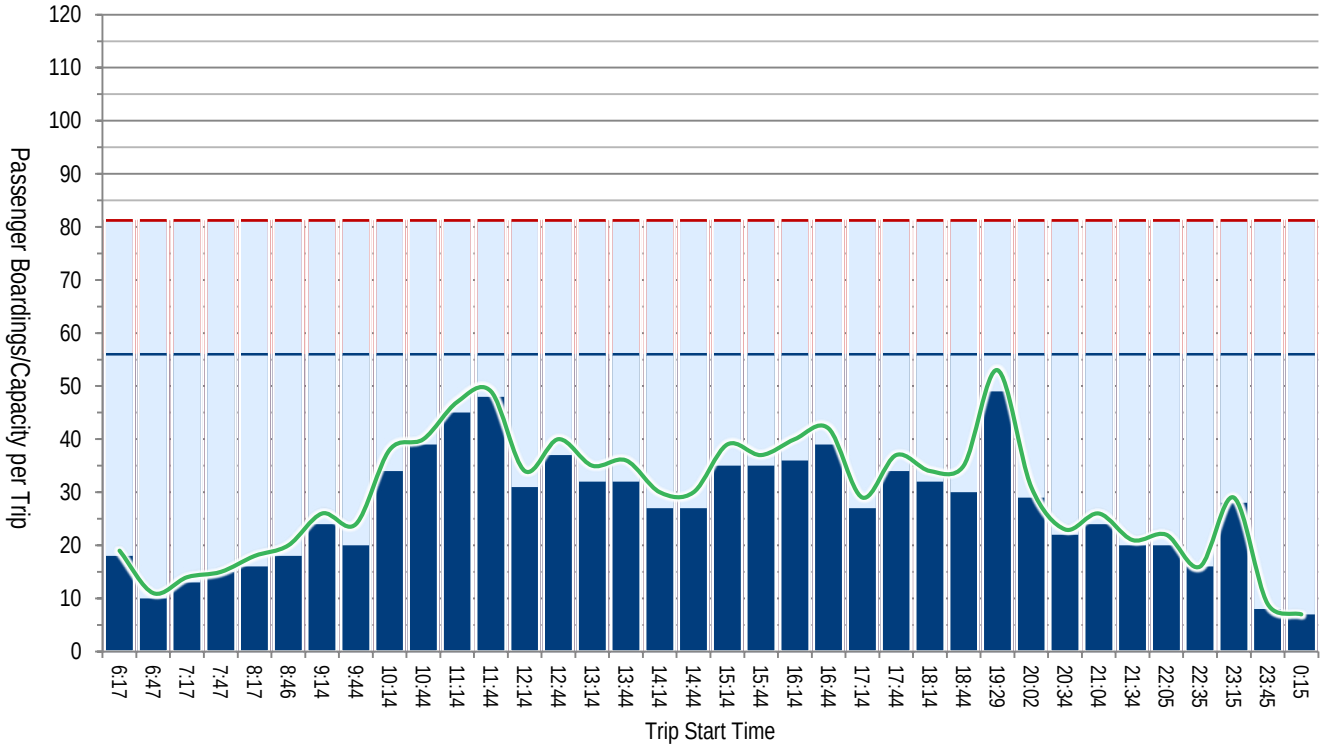


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

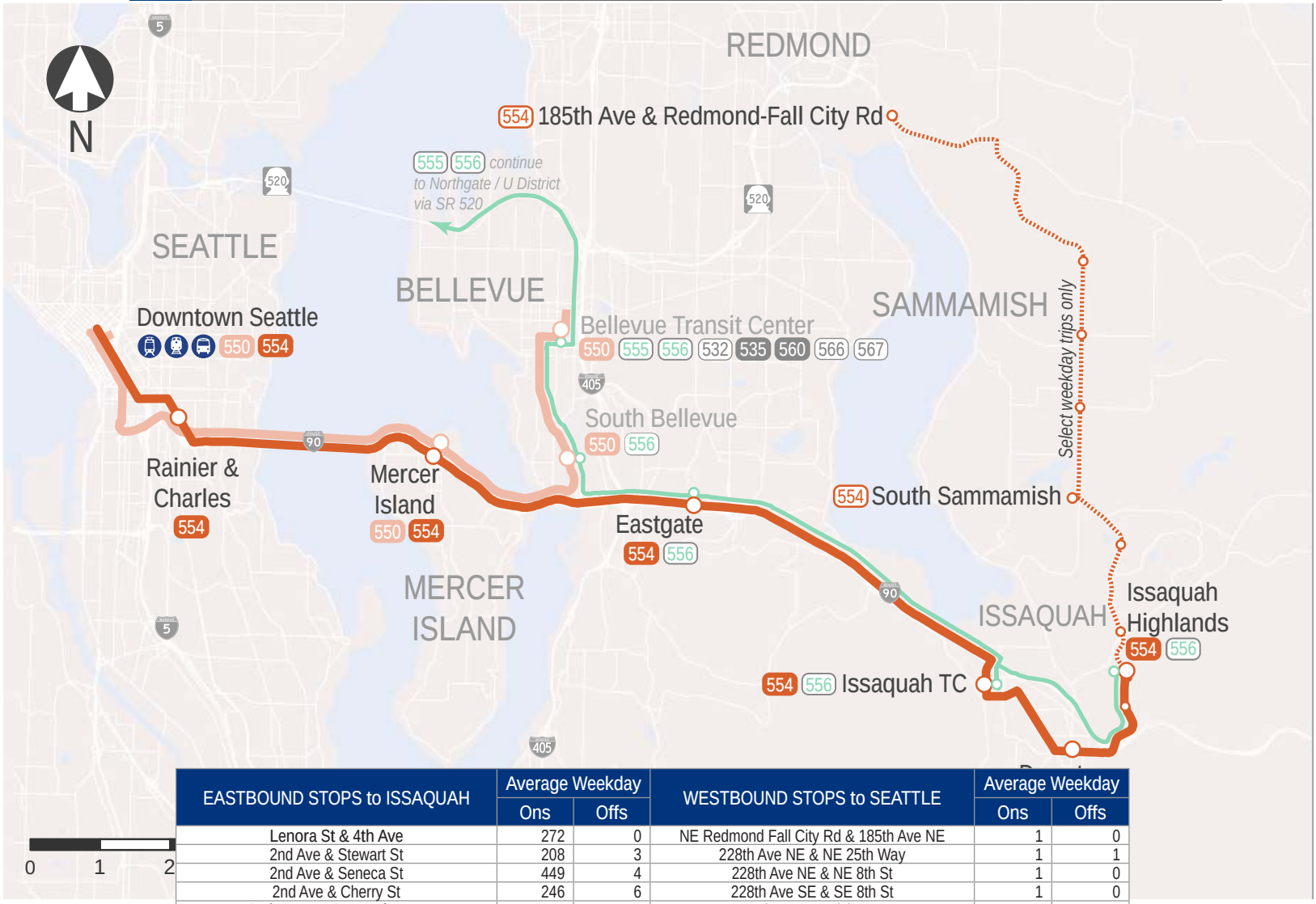
Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Westbound Average Trip Ridership & Maximum Passenger Loads



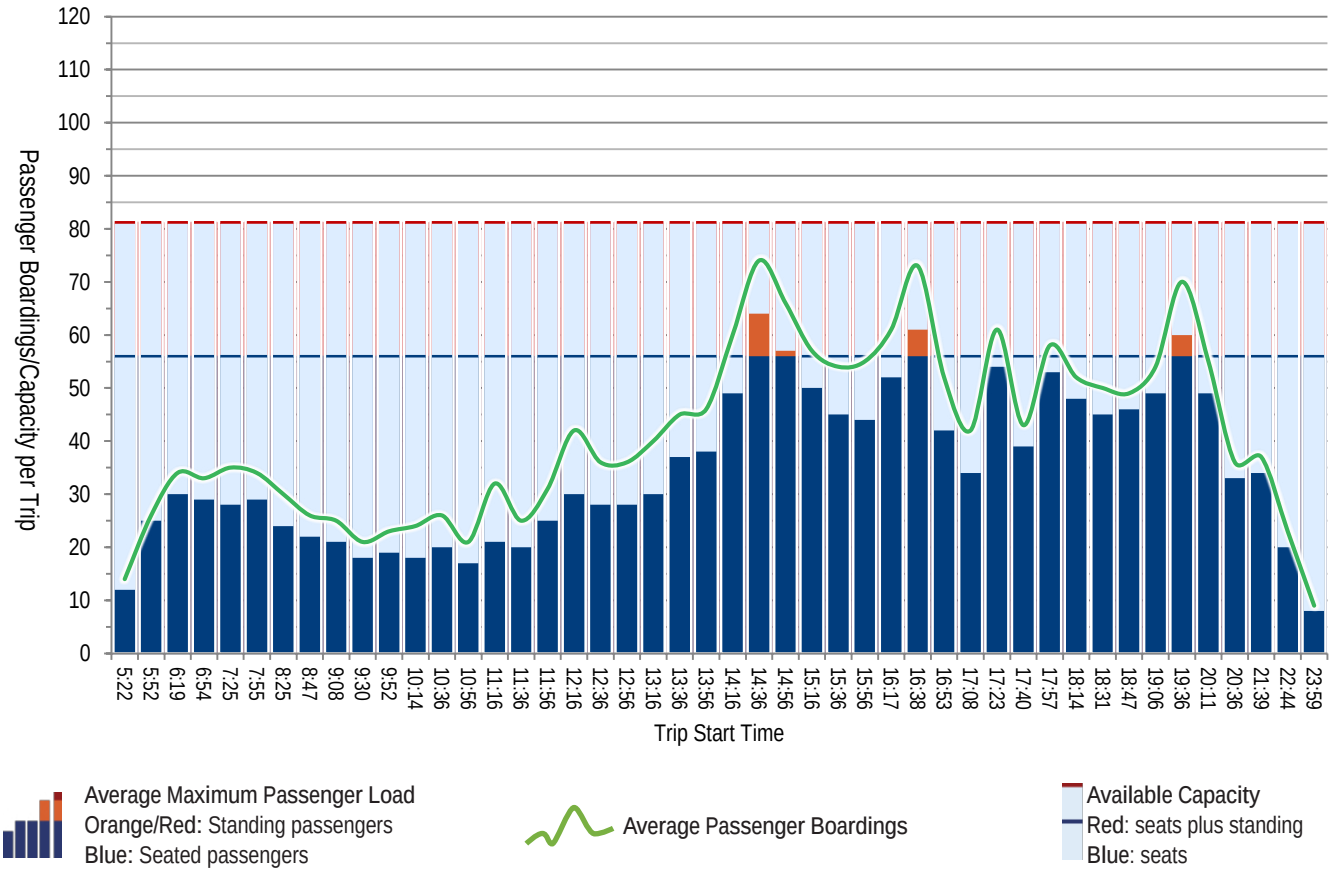
I-90 Route 554 Issaquah - Seattle

Ridership	2016	2017	2018	SPRING 2019
Average Weekday Boardings	4,020	4,116	3,909	3,617
Average Saturday Boardings	1,561	1,672	1,546	1,374
Average Sunday Boardings	1,237	1,339	1,246	1,237
Annual Boardings	1,180,368	1,213,152	1,149,670	

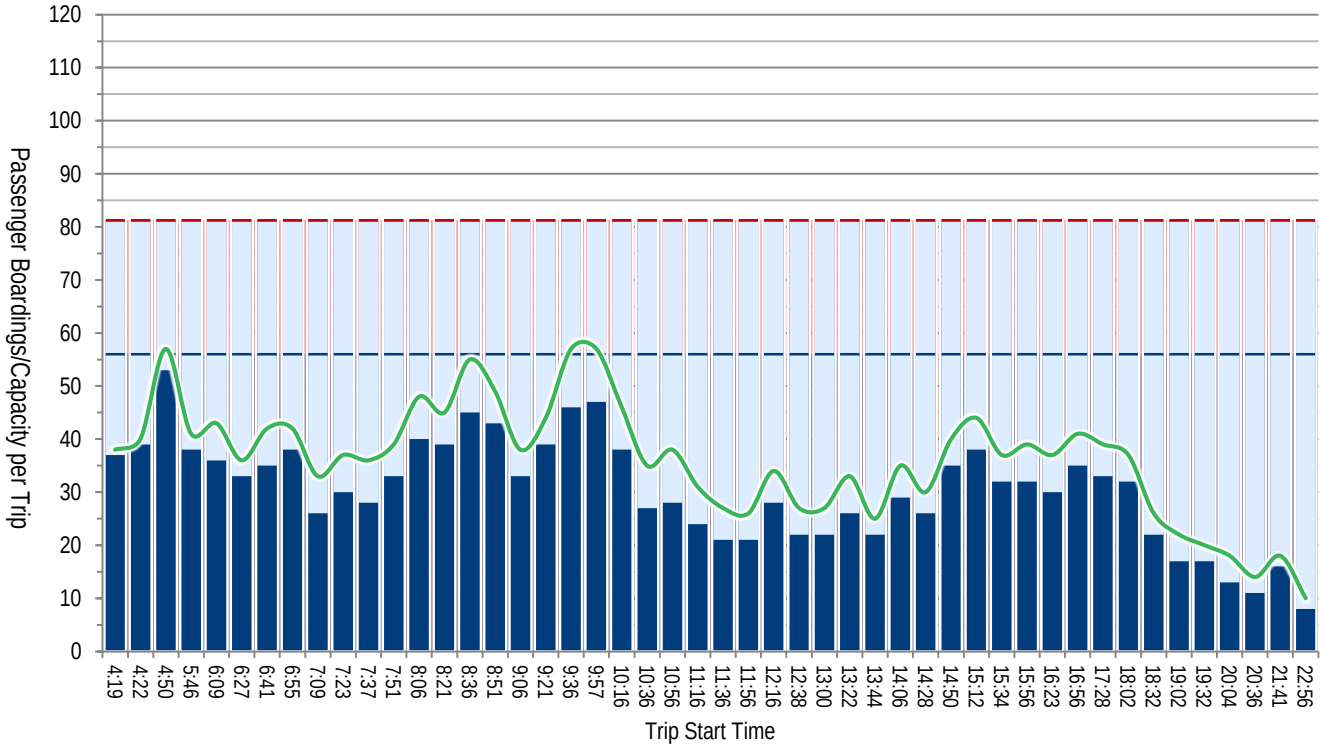


EASTBOUND STOPS to ISSAQUAH	Average Weekday Ons	Average Weekday Offs	WESTBOUND STOPS to SEATTLE	Average Weekday Ons	Average Weekday Offs
Lenora St & 4th Ave	272	0	NE Redmond Fall City Rd & 185th Ave NE	1	0
2nd Ave & Stewart St	208	3	228th Ave NE & NE 25th Way	1	1
2nd Ave & Seneca St	449	4	228th Ave NE & NE 8th St	1	0
2nd Ave & Cherry St	246	6	228th Ave SE & SE 8th St	1	0
2nd Ave Ext S & Yesler Wy	296	7	South Sammamish P&R	2	0
Rainier Ave S & S Charles St	120	29	Issaquah Pine Lake Rd SE & SE 37th Pl	0	0
Mercer Island Park & Ride	75	250	Issaquah Highlands P&R	163	1
Eastgate Freeway Station	117	617	9th Ave NE & NE Ellis Dr	72	8
Issaquah Transit Center	30	472	E Sunset Way & 1st Ave NE	171	29
Sunset Way & Rainier Blvd	31	176	Issaquah Transit Center	437	22
Highlands Dr & NE Ellis Dr	2	104	Eastgate Freeway Station	419	91
Issaquah Highlands P&R	3	169	Mercer Island Park & Ride	313	60
Issaquah Pine Lake Rd & Issaquah Fall City Rd	0	0	Rainier Ave S & S Charles St	62	87
Issaquah Pine Lake Rd & SE 40th Pl	0	1	4th Ave S & S Jackson St	86	366
South Sammamish P&R	0	3	4th Ave S & S Washington St	10	51
228th Ave NE & SE 8th St	0	2	4th Ave & Cherry St	10	235
228th Ave NE & NE 8th St	0	2	4th Ave & Seneca St	2	283
228th Ave NE & NE 25th Way	0	1	4th Ave & Pike St	13	326
NE Redmond Fall City & 185th Ave NE	0	1	4th Ave & Stewart St	5	124
			Blanchard St & 6th Ave	0	86
Eastbound Total	*1,849*	*1,849*	*Westbound Total*	*1,768*	*1,768*
			Total	*3,617*	*3,617*

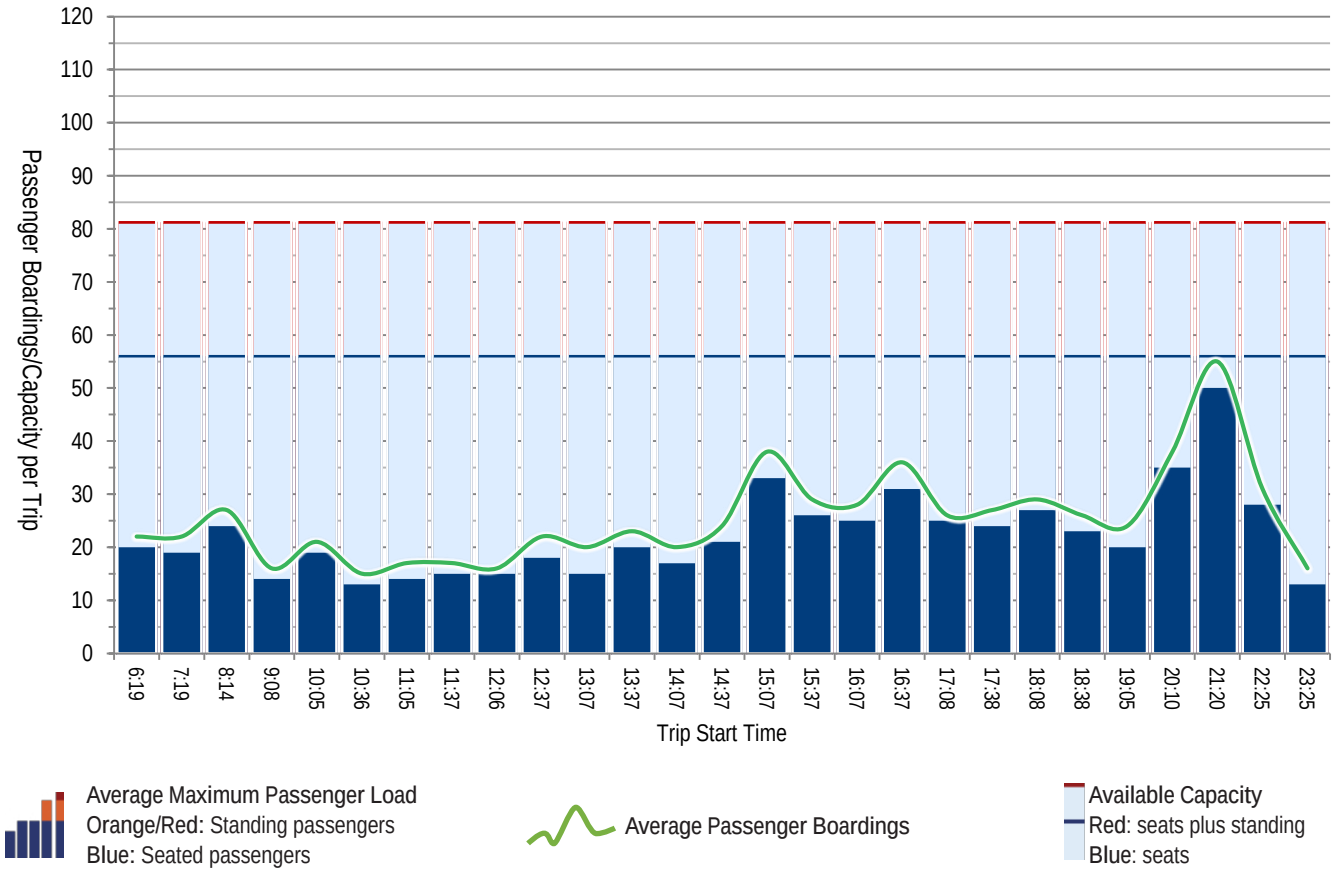
Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday



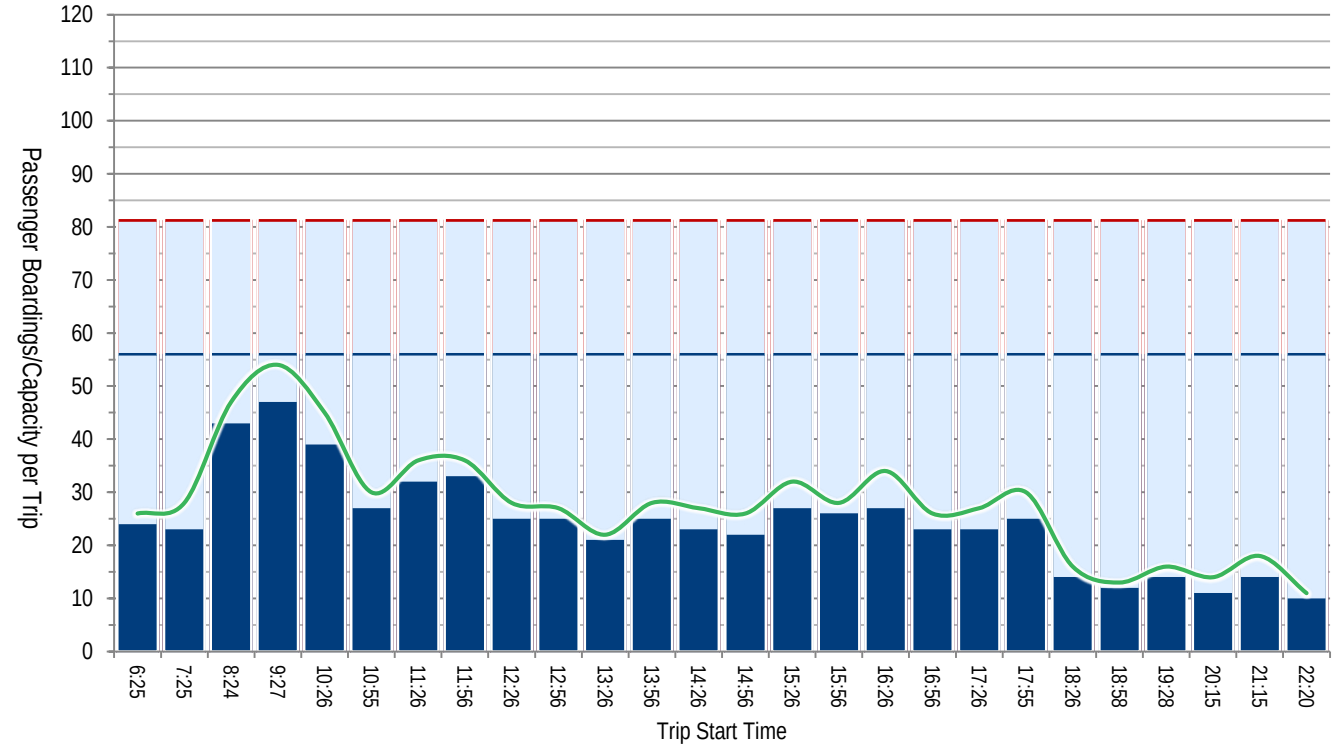
Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



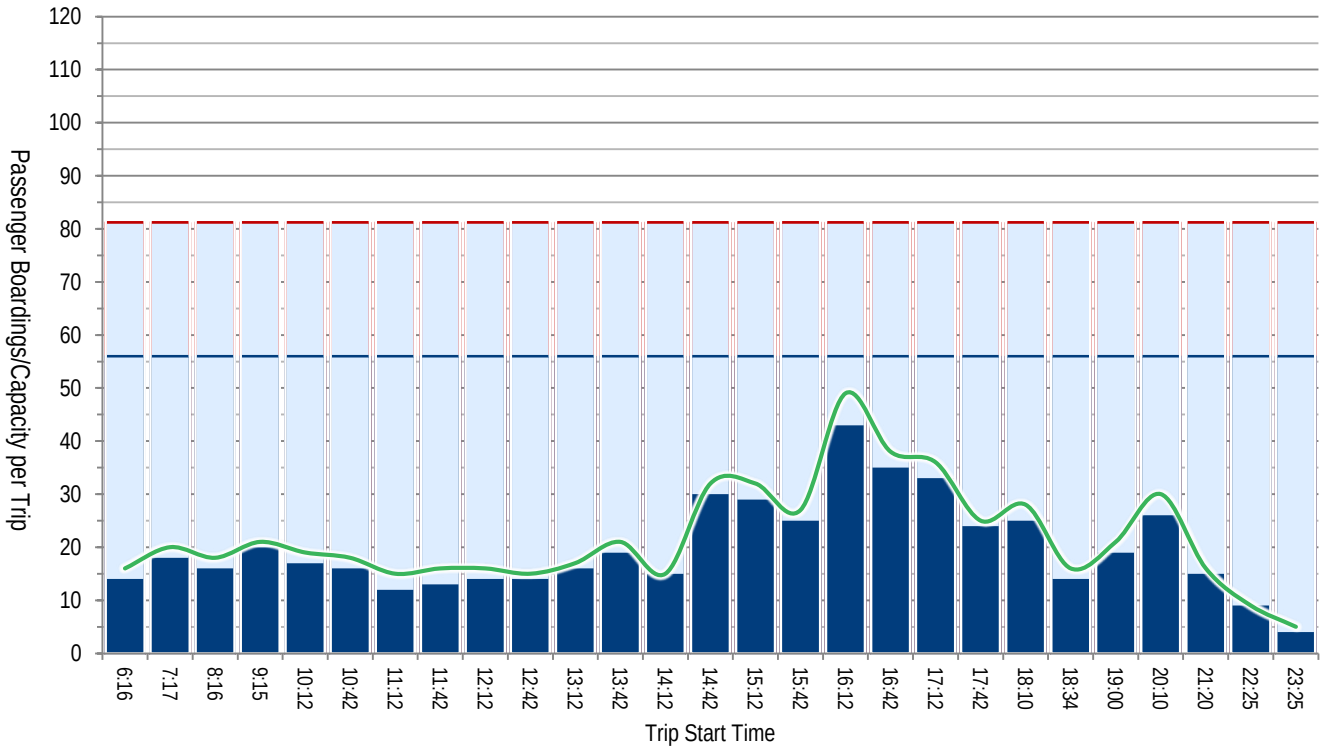
Eastbound Average Trip Ridership & Maximum Passenger Loads — Saturday



Saturday — Westbound Average Trip Ridership & Maximum Passenger Loads



Eastbound Average Trip Ridership & Maximum Passenger Loads — Sunday

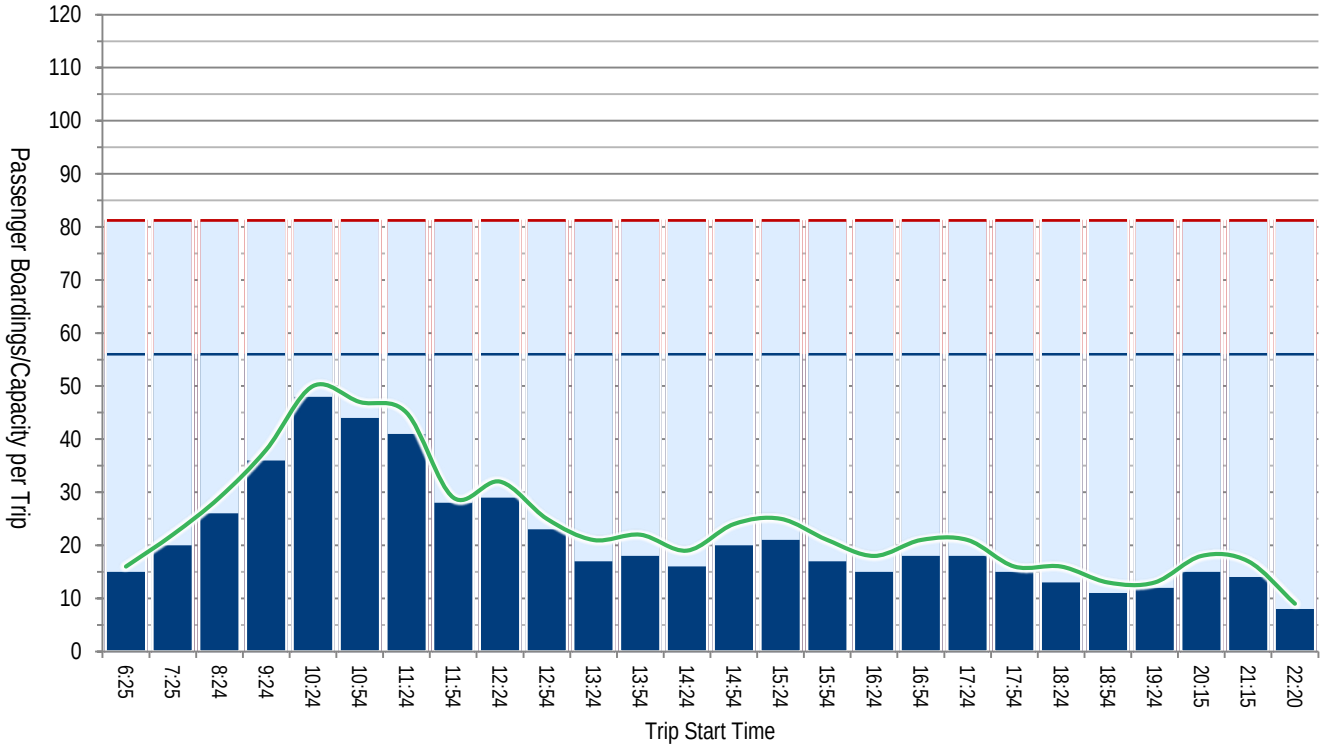


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

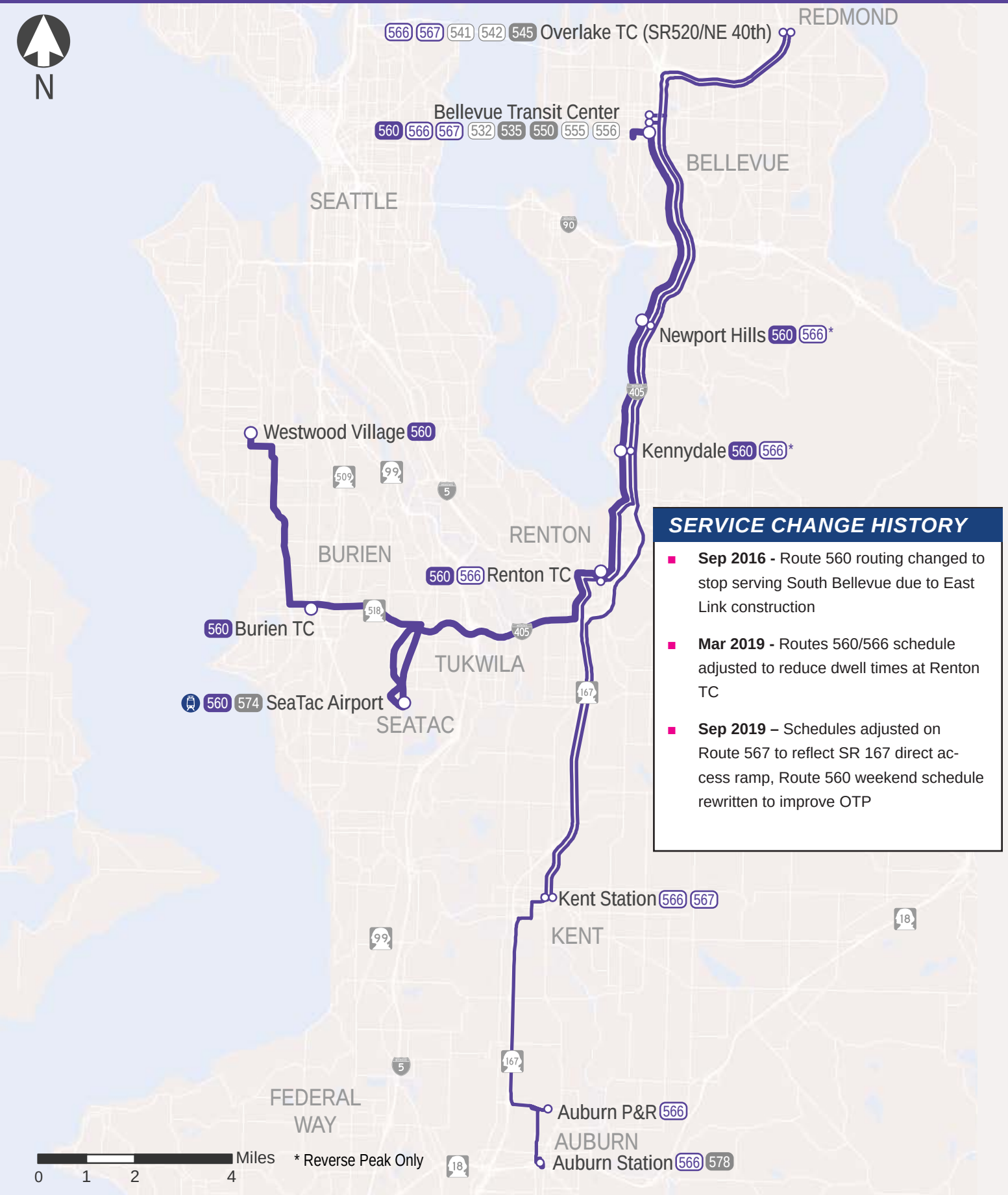
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Westbound Average Trip Ridership & Maximum Passenger Loads



I-405 South



SERVICE CHANGE HISTORY

- **Sep 2016 -** Route 560 routing changed to stop serving South Bellevue due to East Link construction
- **Mar 2019 -** Routes 560/566 schedule adjusted to reduce dwell times at Renton TC
- **Sep 2019 –** Schedules adjusted on Route 567 to reflect SR 167 direct access ramp, Route 560 weekend schedule rewritten to improve OTP

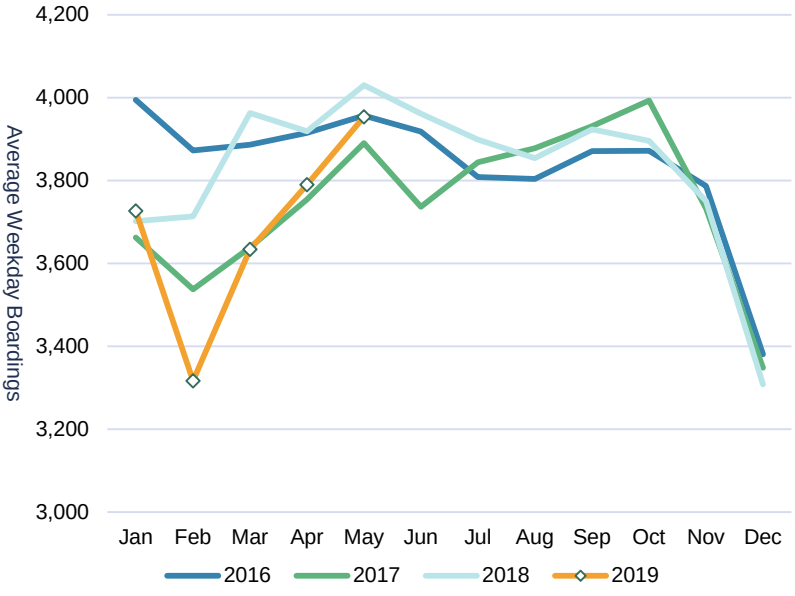
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span
Weekday	North East	560	30 (2a–5a) · 60 (6p–1a)
		566	30 (2a–5a) · 10-20 (6a–7a) · 30 (7a–8a) · 60 (8a–6p) · 30 (6p–1a)
		567	20-30 (5a–8a) · 1 trip (11a)
	South West	560	30 (2a–6p) · 60 (6p–1a)
		566	30 (5a–6a) · 60 (6a–1p) · 30 (1p–3p) · 10-20 (3p–4p) · 30 (4p–1a)
		567	20-30 (1p–5p)

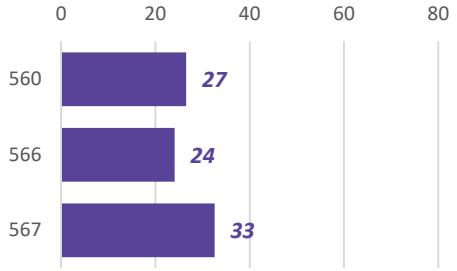
	Direction	Route	Frequency & Span
Sat	East	560	60 (5a–1a)
	West	560	60 (5a–1a)

	Direction	Route	Frequency & Span
Sun	East	560	60 (5a–1a)
	West	560	60 (5a–1a)

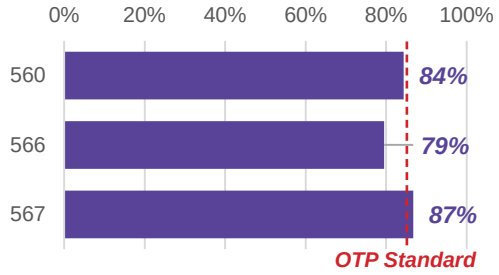
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

- **Route 566:** Discontinue reverse peak service to low ridership stops at Kennydale and Newport Hills to improve reliability between Renton and Bellevue. Rewrite schedules to improve on-time performance.

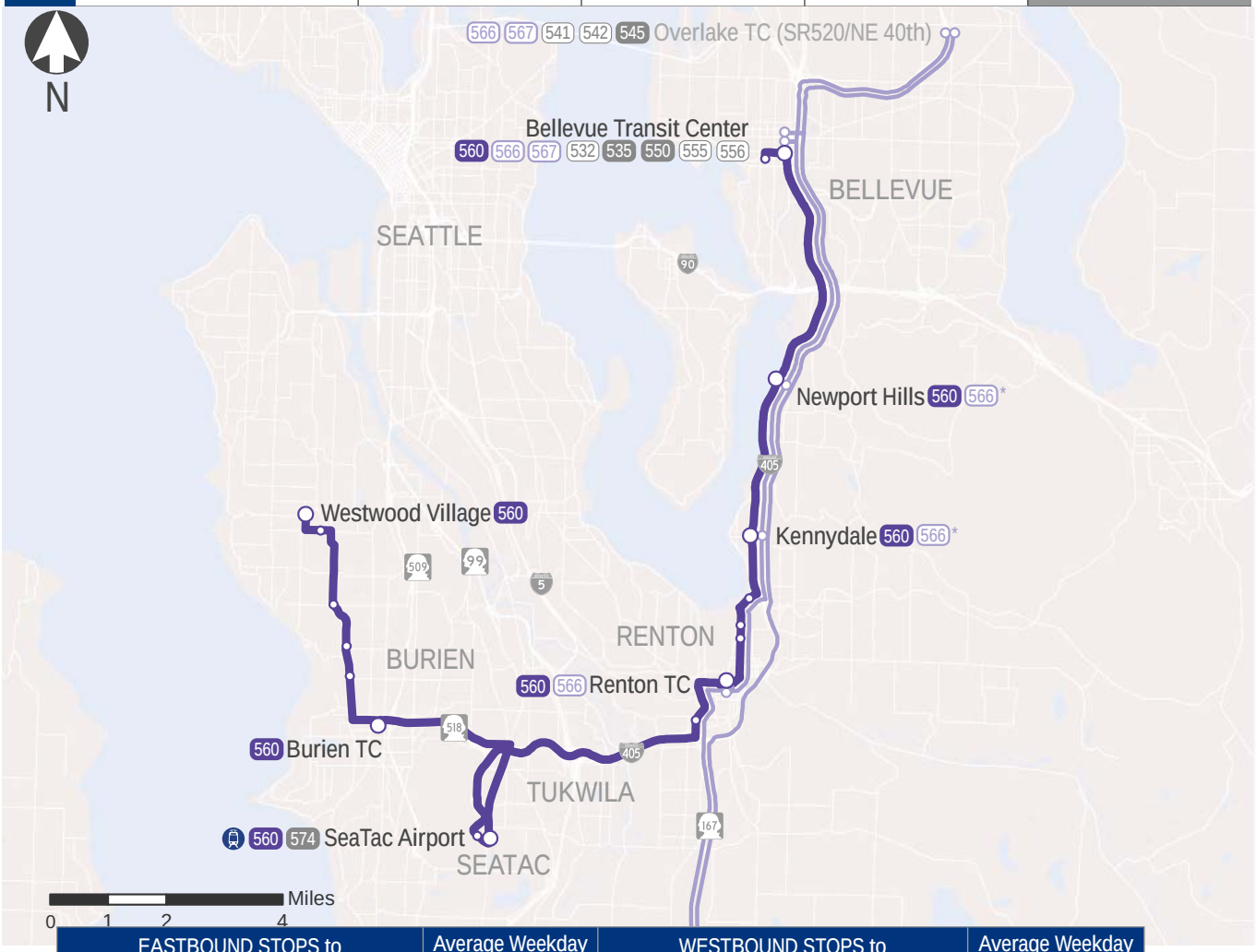
LONG TERM CORRIDOR OUTLOOK

- **2021 -** King County Metro H-Line opens connecting Burien - Westwood Village - Seattle
- **2023 –** East Link opens, connecting Redmond to Seattle via Bellevue
- **2024 –** Stride between Bellevue and Burien opens

I-405 South

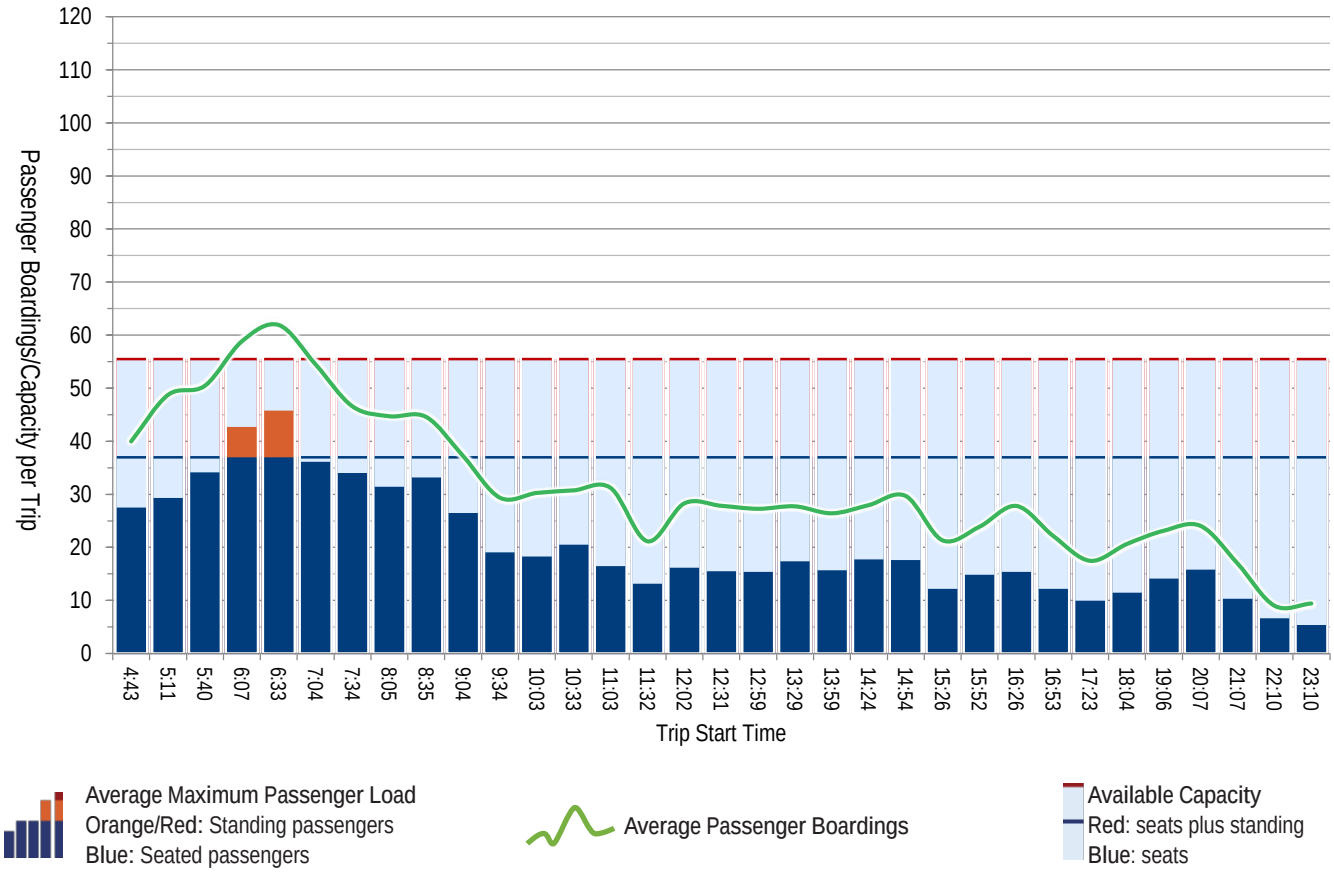
Route 560 Bellevue - Westwood Village

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	1,727	1,724	1,791	1,850
	Average Saturday Boardings	775	794	855	890
	Average Sunday Boardings	702	692	768	831
	Annual Boardings	522,058	519,992	545,862	

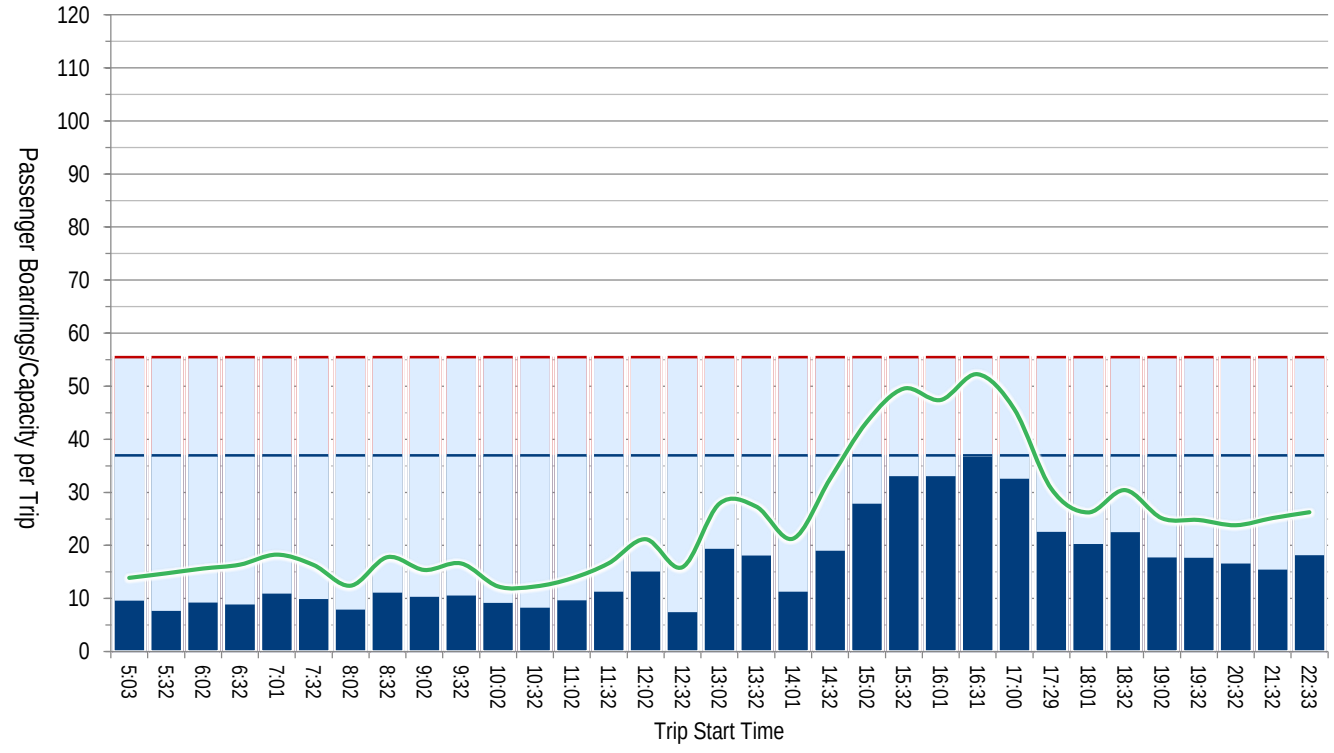


EASTBOUND STOPS to BELLEVUE	Average Weekday		WESTBOUND STOPS to WESTWOOD VILLAGE	Average Weekday	
	Ons	Offs		Ons	Offs
25th Ave & Barton Pl (Westwood Village)	84	0	105th Ave & 2nd St	46	0
Roxbury St & 20th Ave	28	1	Bellevue Transit Center	466	6
16th Ave & 116th St	24	1	I-405/Lake Washington Blvd	7	49
Ambaum Blvd & 128th St	27	2	I-405/Kennydale Freeway Station	19	41
Ambaum Blvd & 136th St	42	3	Park Ave & Lake Washington Blvd	16	30
Burien Transit Center	95	53	Park Ave & 8th St	9	31
SeaTac Airport	126	88	Park Ave & 6th St	6	13
International Blvd & 176th St (Link)	126	32	Renton Transit Center	80	176
Rainier Ave & 7th St	48	46	Rainier Ave & 7th St	42	26
Renton Transit Center	185	67	SeaTac Airport	49	178
Park Ave & 6th St	12	7	International Blvd & 176th St (Link)	51	55
Park Ave & 8th St	28	12	Burien Transit Center	27	78
Park Ave & Garden Ave	27	15	Ambaum Blvd & 136th St	3	27
I-405/Kennydale Freeway Station	48	19	Ambaum Blvd & 128th St	3	15
I-405/Lake Washington Blvd	55	10	Ambaum Blvd & 116th St	1	14
Bellevue Transit Center	68	626	Roxbury St & 20th Ave	1	22
105th Ave & 2nd St	0	42	26th Ave & Barton Pl (Westwood Village)	0	65
Eastbound Total	*1,023*	*1,023*	*Westbound Total*	*827*	*827*
			Total	*1,850*	*1,850*

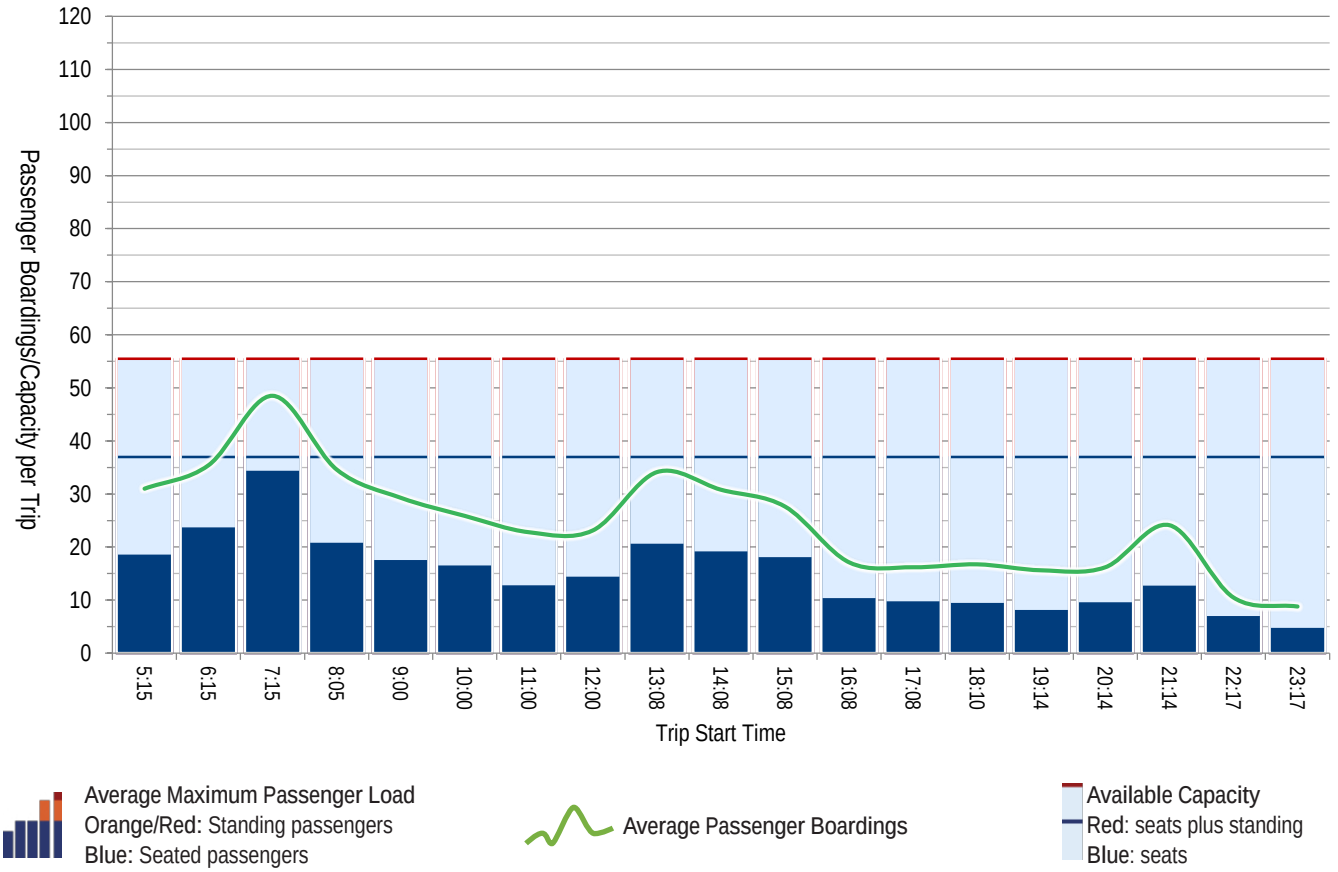
Eastbound Average Trip Ridership & Maximum Passenger Loads — Weekday



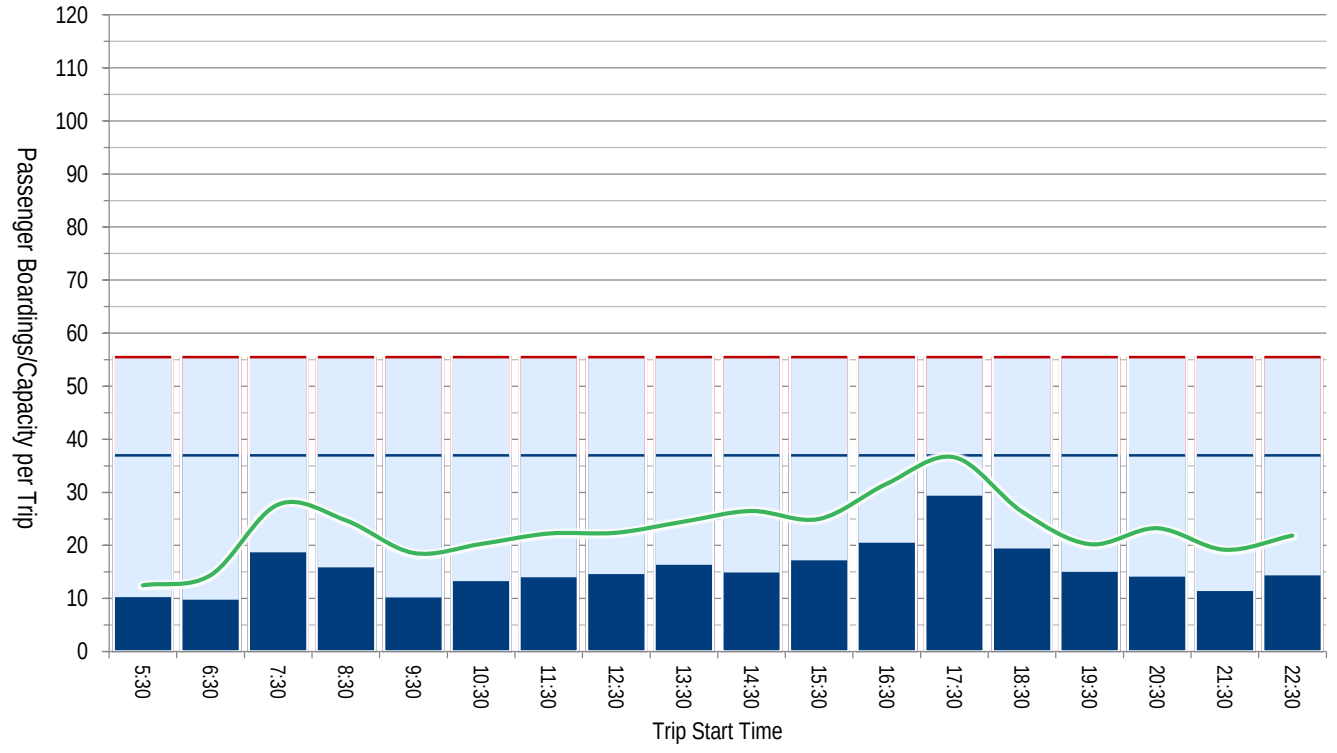
Weekday — Westbound Average Trip Ridership & Maximum Passenger Loads



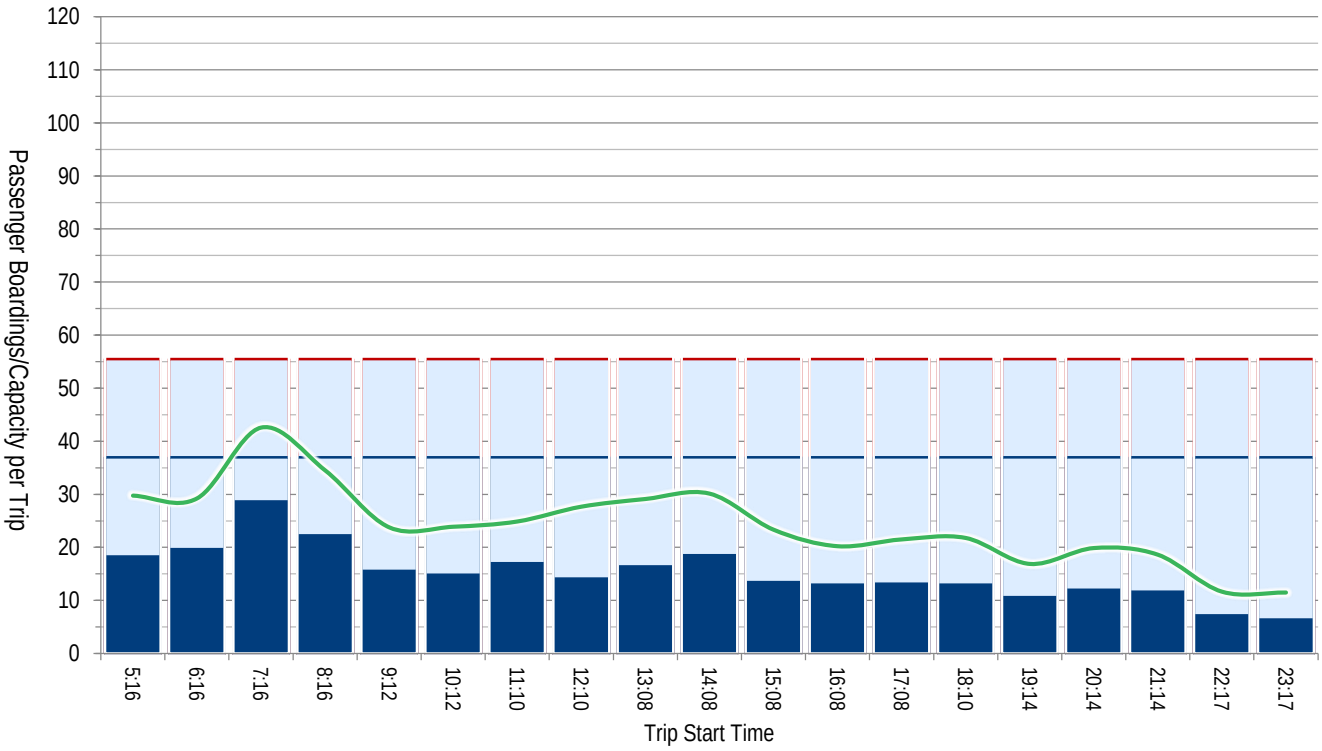
Eastbound Average Trip Ridership & Maximum Passenger Loads — Saturday



Saturday — Westbound Average Trip Ridership & Maximum Passenger Loads



Eastbound Average Trip Ridership & Maximum Passenger Loads — Sunday

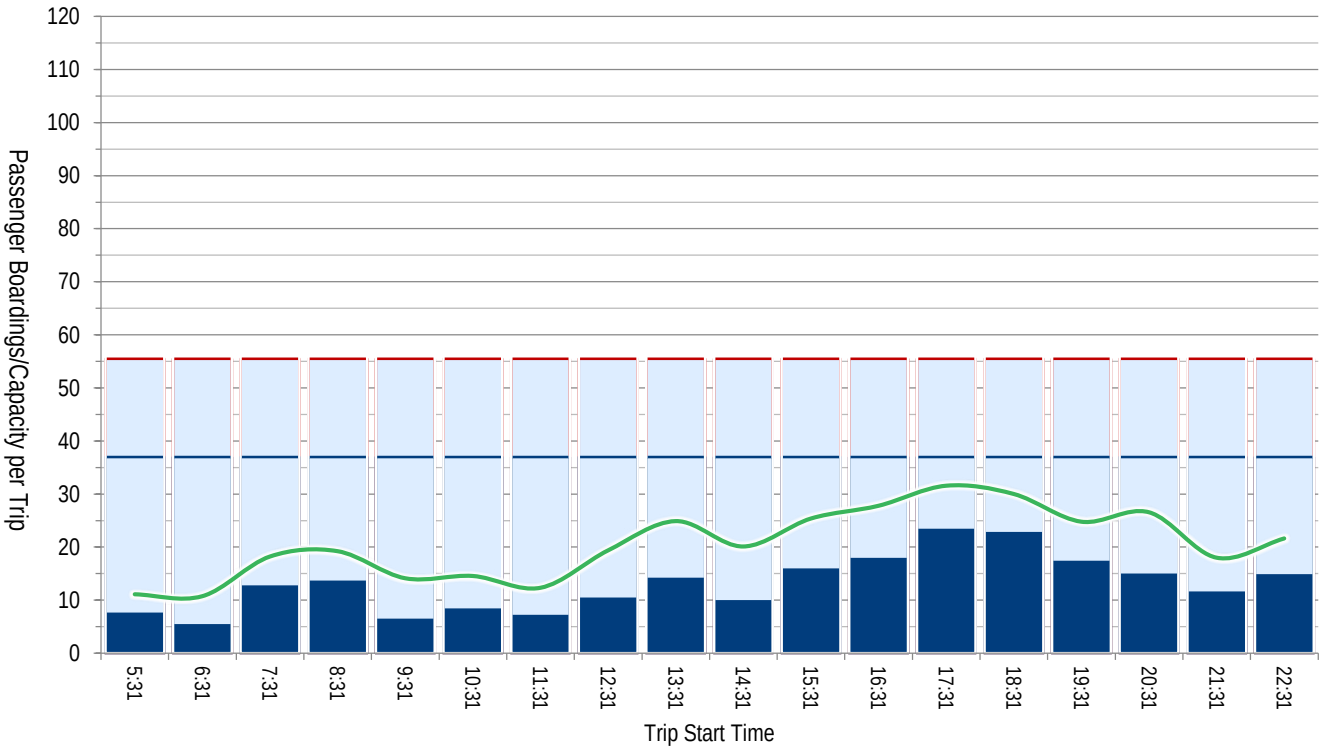


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Westbound Average Trip Ridership & Maximum Passenger Loads



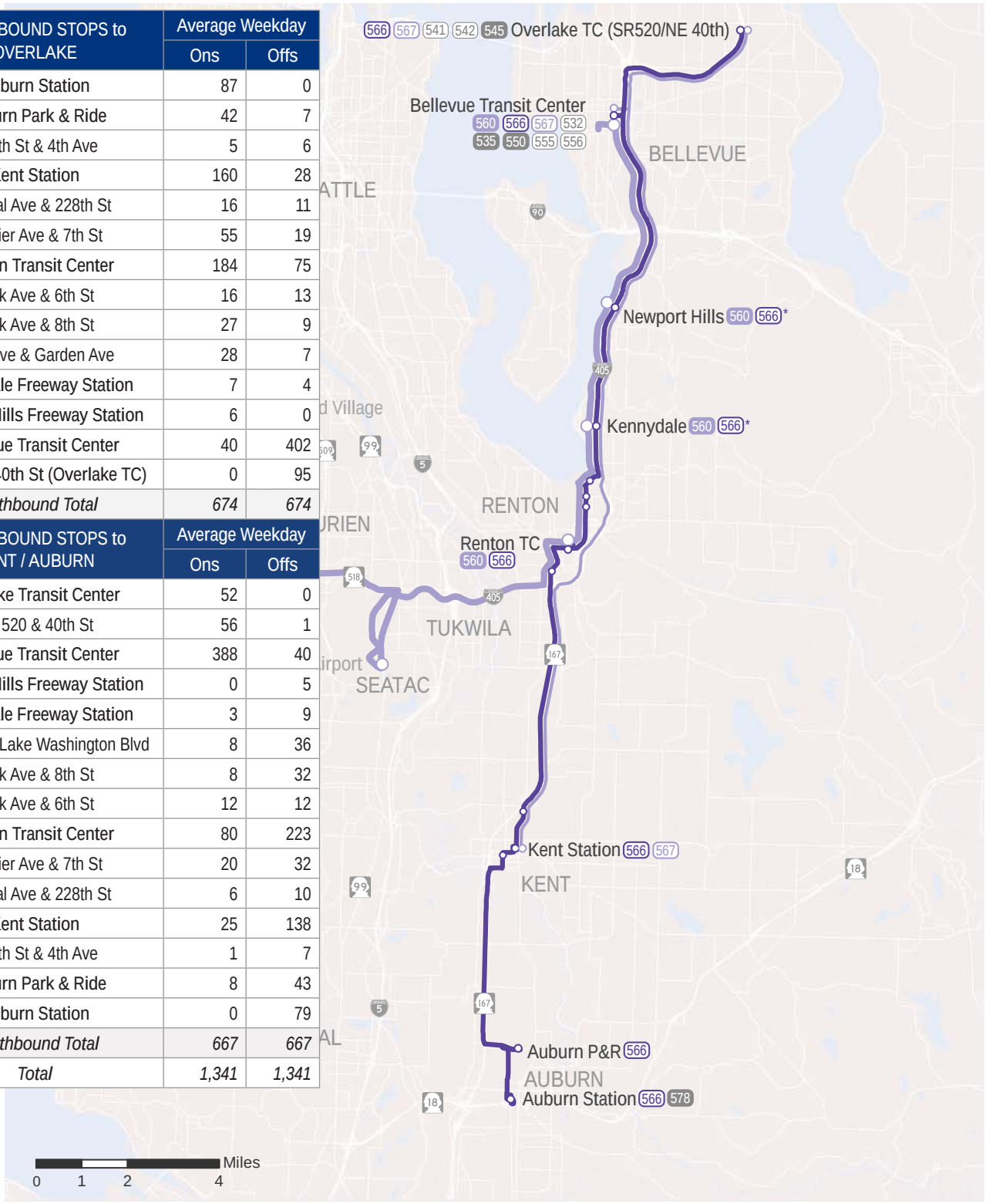
I-405 South

Route 566 Kent / Auburn - Overlake

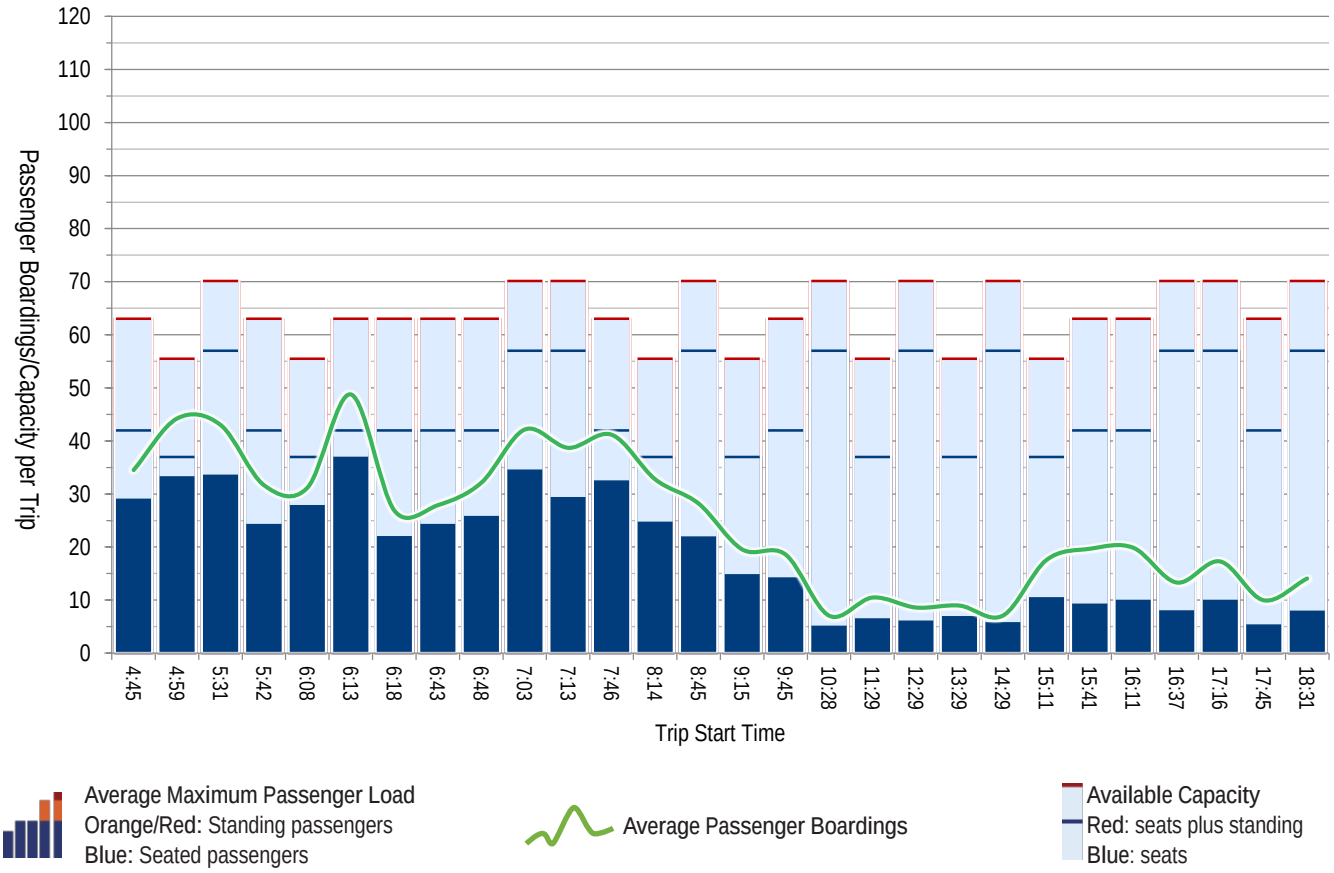
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	1,516	1,401	1,376	1,341
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	386,674	355,782	350,801	

NORTHBOUND STOPS to OVERLAKE	Average Weekday	
	Ons	Offs
Auburn Station	87	0
Auburn Park & Ride	42	7
Smith St & 4th Ave	5	6
Kent Station	160	28
Central Ave & 228th St	16	11
Rainier Ave & 7th St	55	19
Renton Transit Center	184	75
Park Ave & 6th St	16	13
Park Ave & 8th St	27	9
Park Ave & Garden Ave	28	7
Kennydale Freeway Station	7	4
Newport Hills Freeway Station	6	0
Bellevue Transit Center	40	402
SR 520 & 40th St (Overlake TC)	0	95
Northbound Total	*674*	*674*

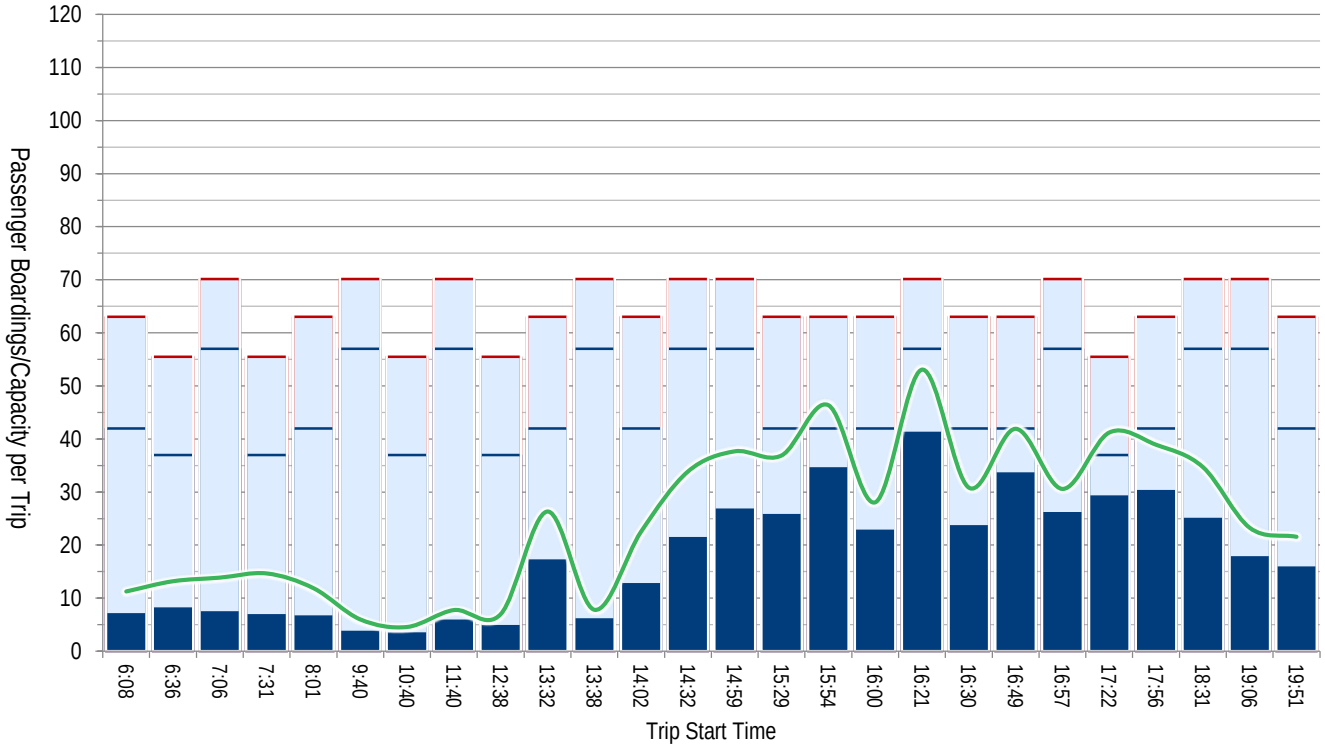
SOUTHBOUND STOPS to KENT / AUBURN	Average Weekday	
	Ons	Offs
Overlake Transit Center	52	0
SR 520 & 40th St	56	1
Bellevue Transit Center	388	40
Newport Hills Freeway Station	0	5
Kennydale Freeway Station	3	9
Park Ave & Lake Washington Blvd	8	36
Park Ave & 8th St	8	32
Park Ave & 6th St	12	12
Renton Transit Center	80	223
Rainier Ave & 7th St	20	32
Central Ave & 228th St	6	10
Kent Station	25	138
Smith St & 4th Ave	1	7
Auburn Park & Ride	8	43
Auburn Station	0	79
Southbound Total	*667*	*667*
Total	*1,341*	*1,341*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



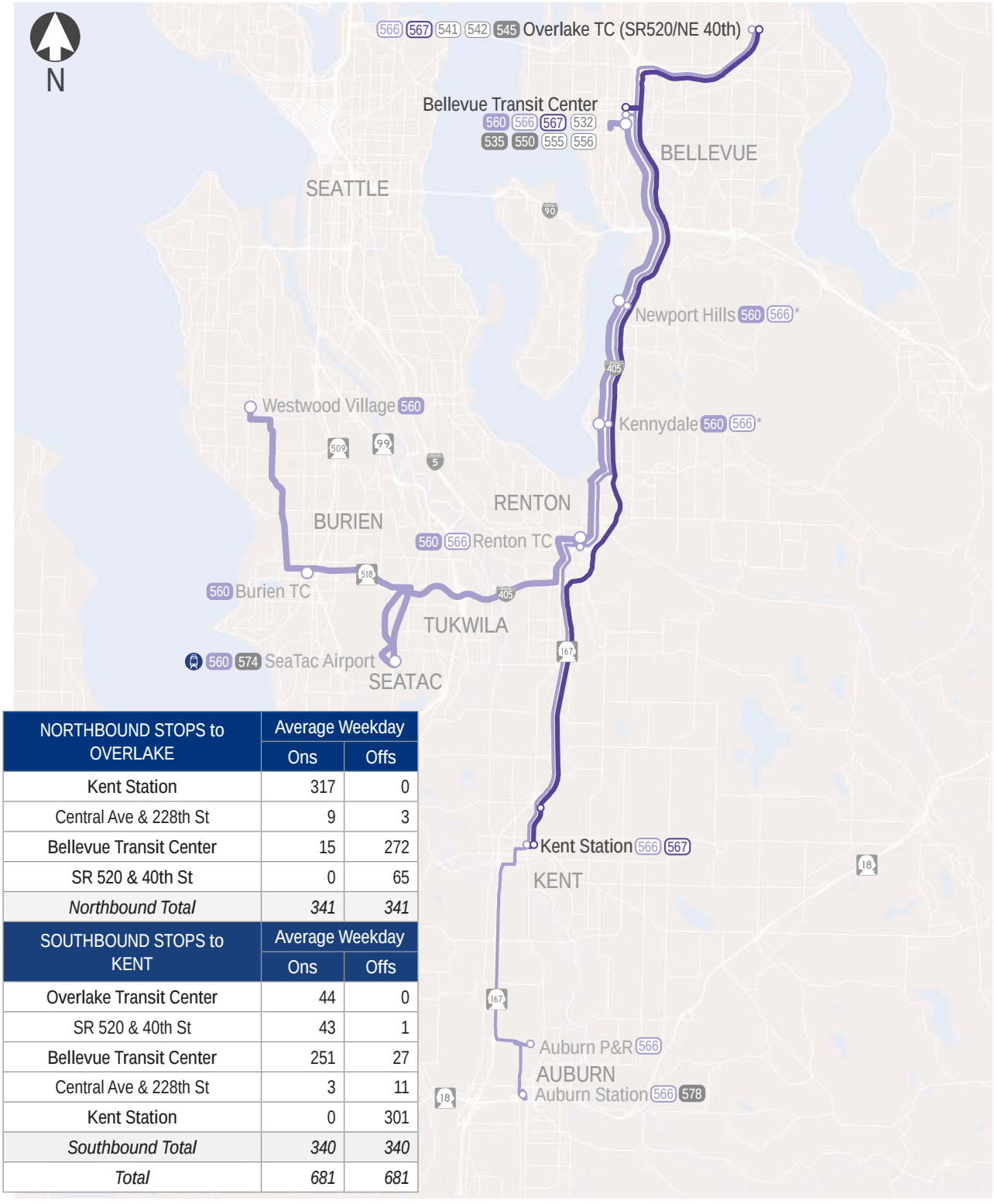
Weekday Southbound Average Trip Ridership & Maximum Passenger Loads



I-405 South

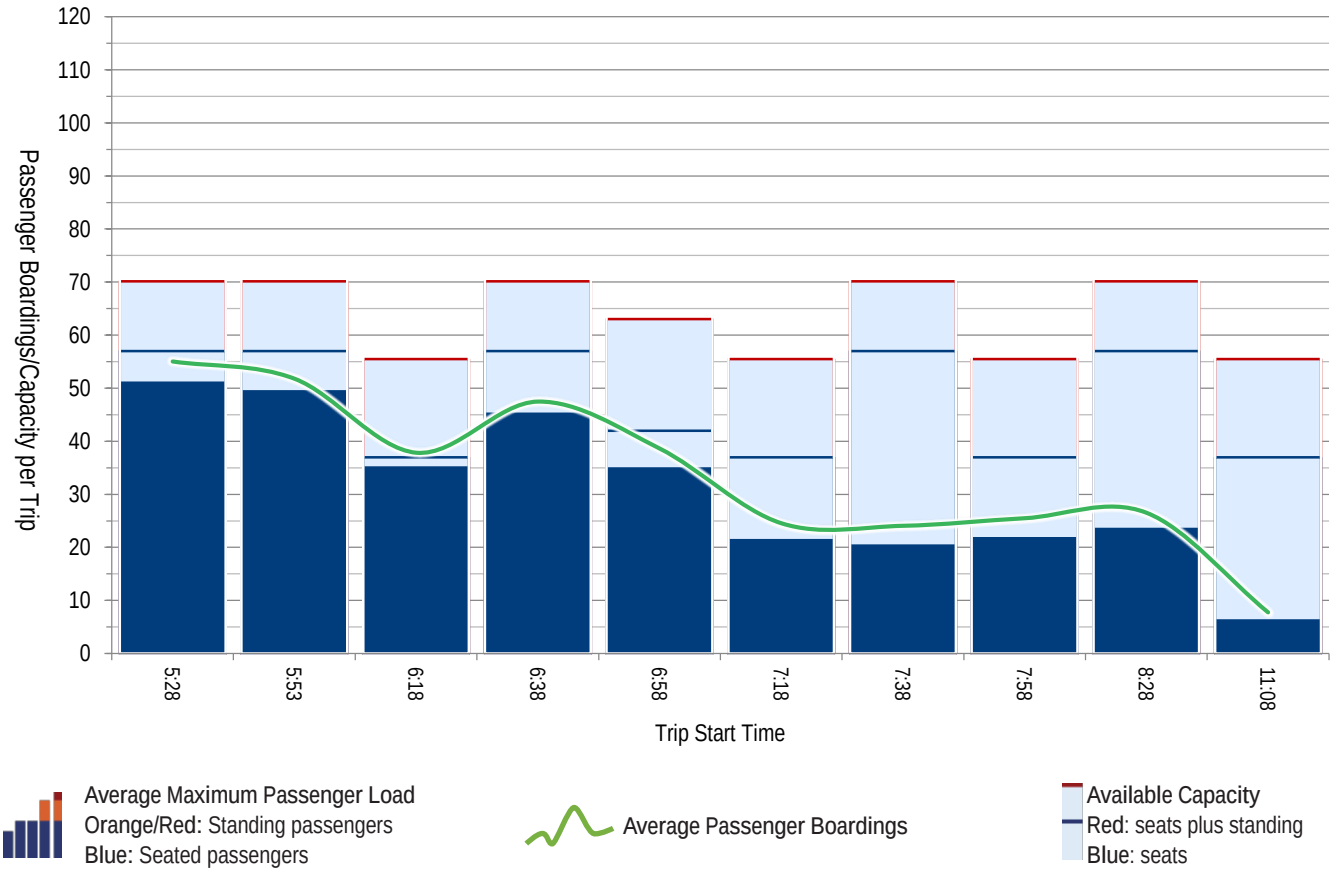
Route 567 Kent - Overlake

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	**596**	**624**	**663**	**681**
	Average Saturday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Average Sunday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Annual Boardings	**151,971**	**158,445**	**169,002**	

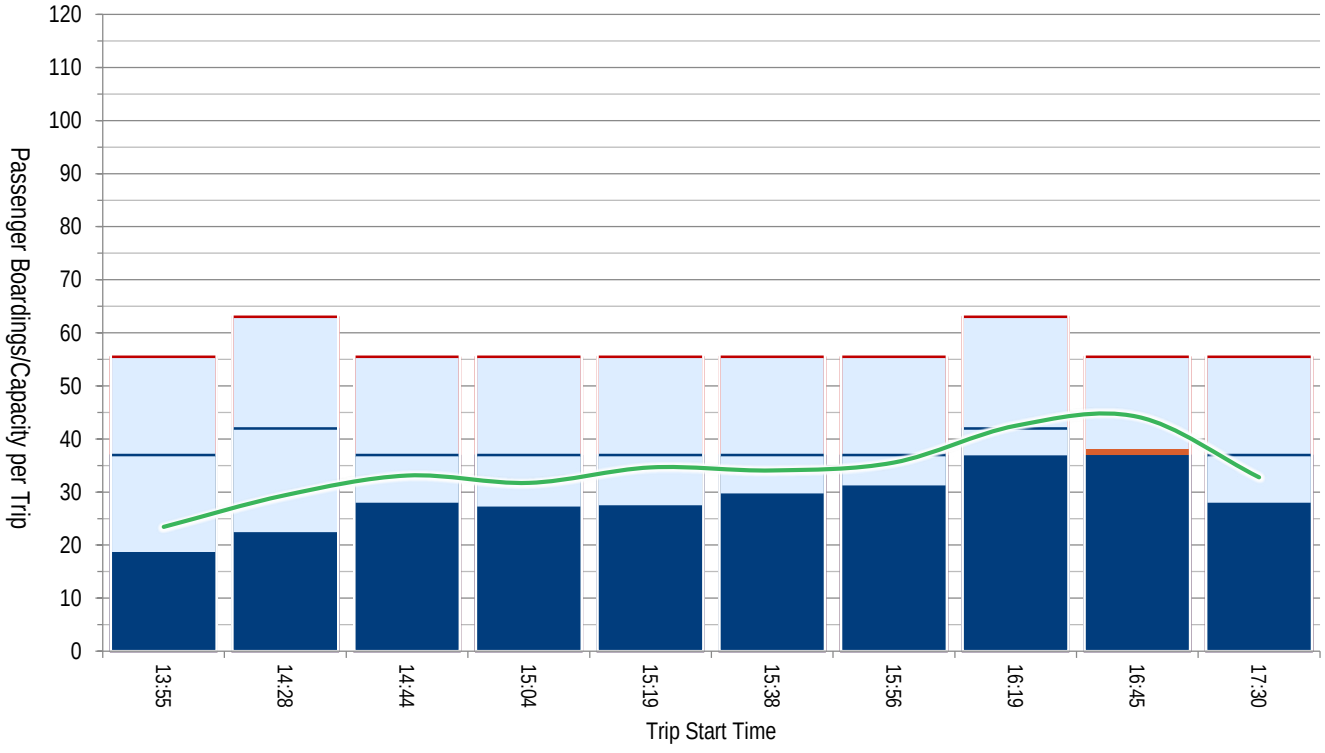


NORTHBOUND STOPS to OVERLAKE	Average Weekday	
	Ons	Offs
Kent Station	317	0
Central Ave & 228th St	9	3
Bellevue Transit Center	15	272
SR 520 & 40th St	0	65
Northbound Total	*341*	*341*
SOUTHBOUND STOPS to KENT	**Average Weekday**	
	Ons	Offs
Overlake Transit Center	44	0
SR 520 & 40th St	43	1
Bellevue Transit Center	251	27
Central Ave & 228th St	3	11
Kent Station	0	301
Southbound Total	*340*	*340*
Total	*681*	*681*

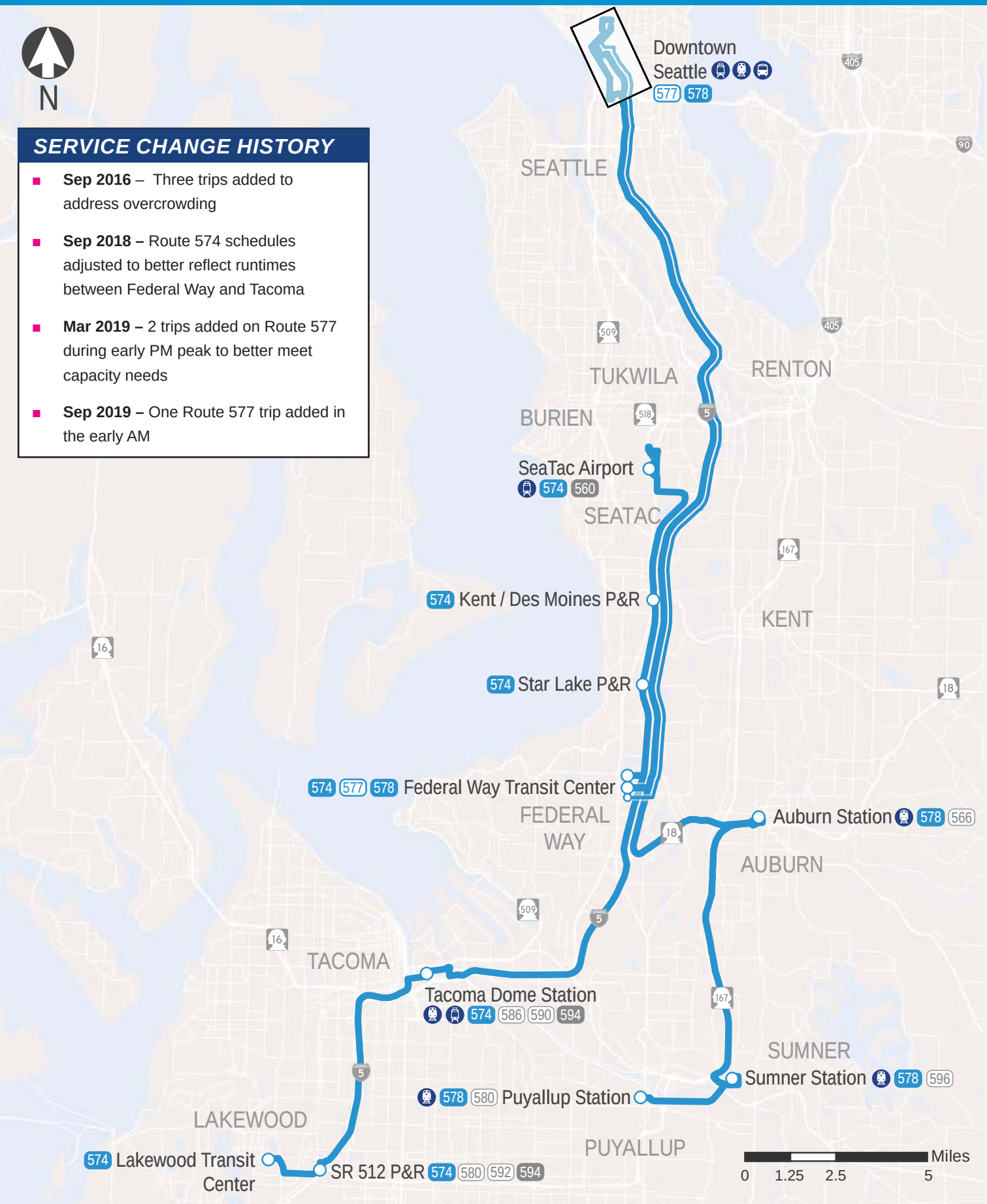
Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



Weekday Southbound Average Trip Ridership & Maximum Passenger Loads



I-5 South - South King



SERVICE CHANGE HISTORY

- **Sep 2016** – Three trips added to address overcrowding
- **Sep 2018 –** Route 574 schedules adjusted to better reflect runtimes between Federal Way and Tacoma
- **Mar 2019 –** 2 trips added on Route 577 during early PM peak to better meet capacity needs
- **Sep 2019 –** One Route 577 trip added in the early AM

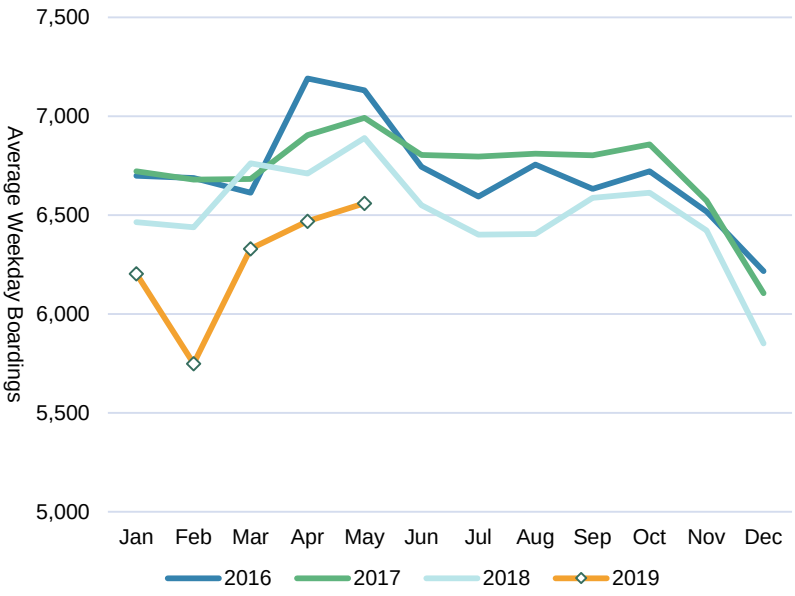
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span
Weekday	North	574	10-15 · 30 · 60
		577	10-15
		578	20 · 30 · 60
	South	574	30 · 20 · 30 · 60
		577	15-30 · 10-15
		578	30 · 20 · 30 · 60

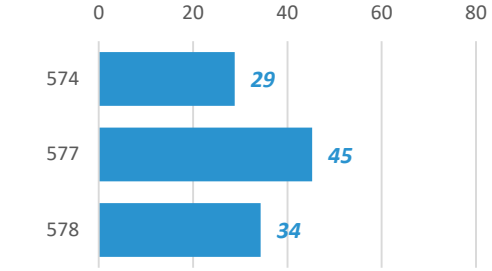
	Direction	Route	Frequency & Span
Sat	North	574	30 · 60 · 30 · 60
		577	60
		578	60
	South	574	60 · 30 · 60
		577	60
		578	60

	Direction	Route	Frequency & Span
Sun	North	574	30 · 60 · 30 · 60
		577	60
		578	60
	South	574	60 · 30 · 60
		577	60
		578	60

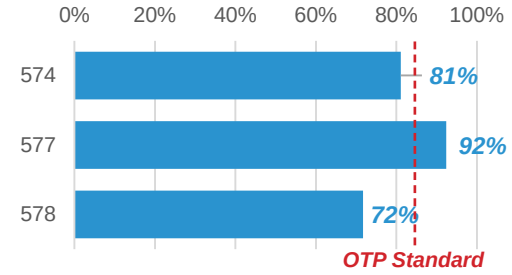
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

- Route 574 - Rewrite schedule to better reflect travel time between Federal Way and Tacoma Dome
- Route 577 - Replace weekend service with Route 578 service operating between Auburn and Seattle via Federal Way
- Route 578 - Rewrite schedule to reflect increased congestion on SR-167 to improve on-time performance

LONG TERM CORRIDOR OUTLOOK

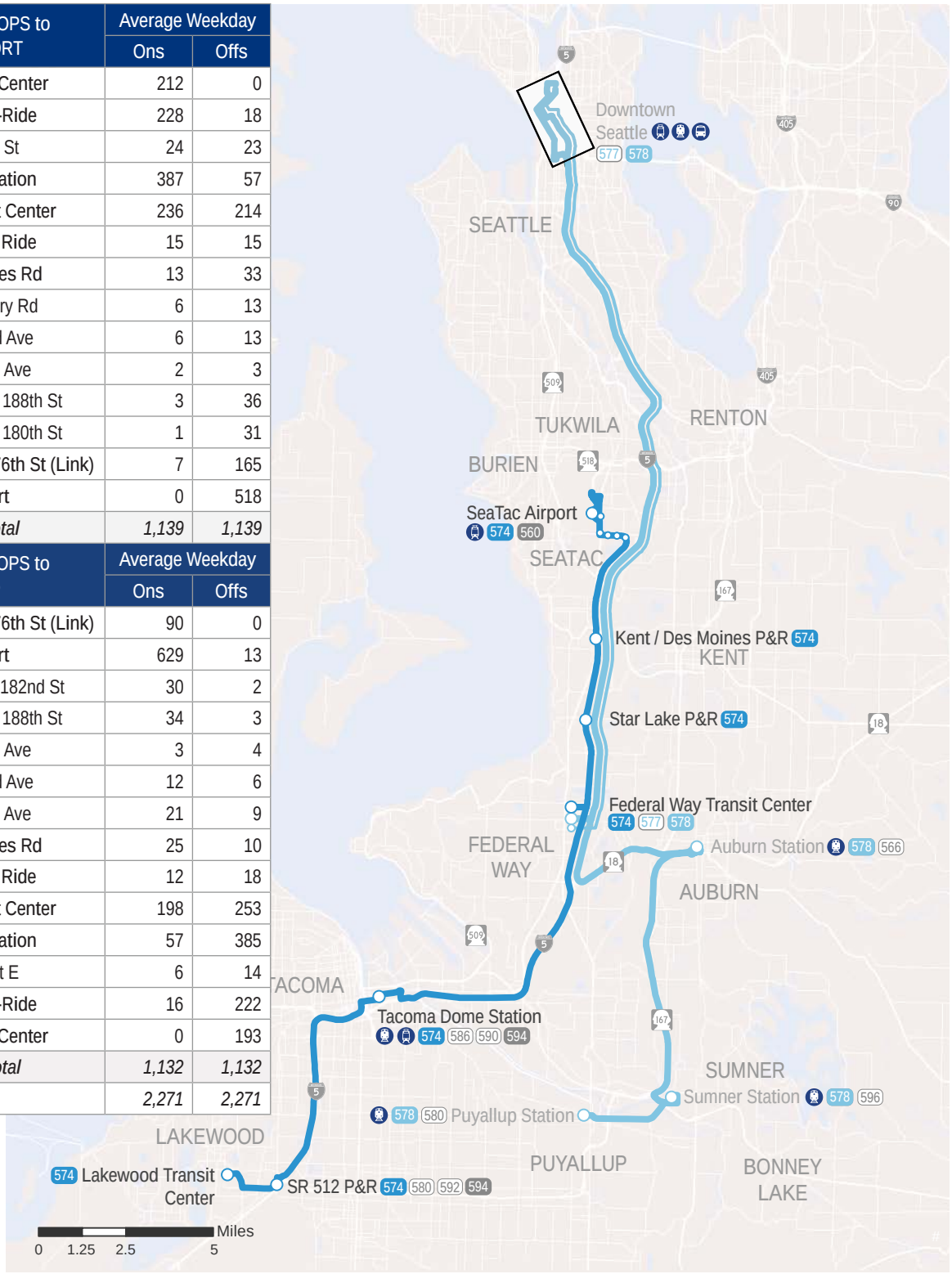
- **2024 –** Federal Way Link Extension opens

I-5 South King

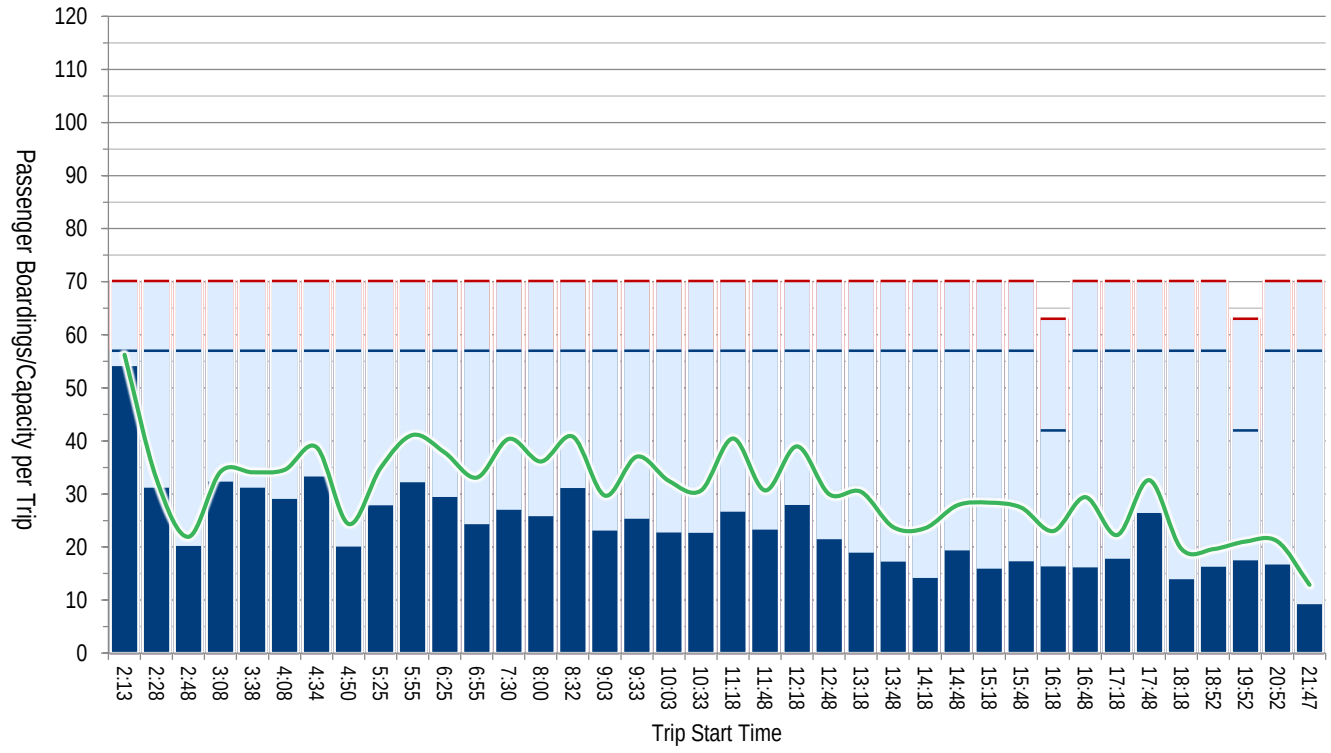
Route 574 Lakewood - SeaTac Airport

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	2,309	2,236	2,251	2,271
	Average Saturday Boardings	1,686	1,611	1,538	1,632
	Average Sunday Boardings	1,517	1,428	1,429	1,445
	Annual Boardings	766,163	735,955	736,839	

NORTHBOUND STOPS to SEATAC AIRPORT	Average Weekday	
	Ons	Offs
Lakewood Transit Center	212	0
SR-512 Park-and-Ride	228	18
D St E & E 25th St	24	23
Tacoma Dome Station	387	57
Federal Way Transit Center	236	214
Star Lake Park & Ride	15	15
I-5/Kent Des Moines Rd	13	33
S 188th St & Military Rd	6	13
S 188th St & 42nd Ave	6	13
S 188th St & 36th Ave	2	3
International Blvd & S 188th St	3	36
International Blvd & S 180th St	1	31
International Blvd & S 176th St (Link)	7	165
SeaTac Airport	0	518
Northbound Total	*1,139*	*1,139*
SOUTHBOUND STOPS to LAKEWOOD	**Average Weekday**	
	Ons	Offs
International Blvd & S 176th St (Link)	90	0
SeaTac Airport	629	13
International Blvd & S 182nd St	30	2
International Blvd & S 188th St	34	3
S 188th St & 36th Ave	3	4
S 188th St & 42nd Ave	12	6
S 188th St & 46th Ave	21	9
I-5/Kent Des Moines Rd	25	10
Star Lake Park & Ride	12	18
Federal Way Transit Center	198	253
Tacoma Dome Station	57	385
E 26th St & D St E	6	14
SR-512 Park-and-Ride	16	222
Lakewood Transit Center	0	193
Southbound Total	*1,132*	*1,132*
Total	*2,271*	*2,271*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

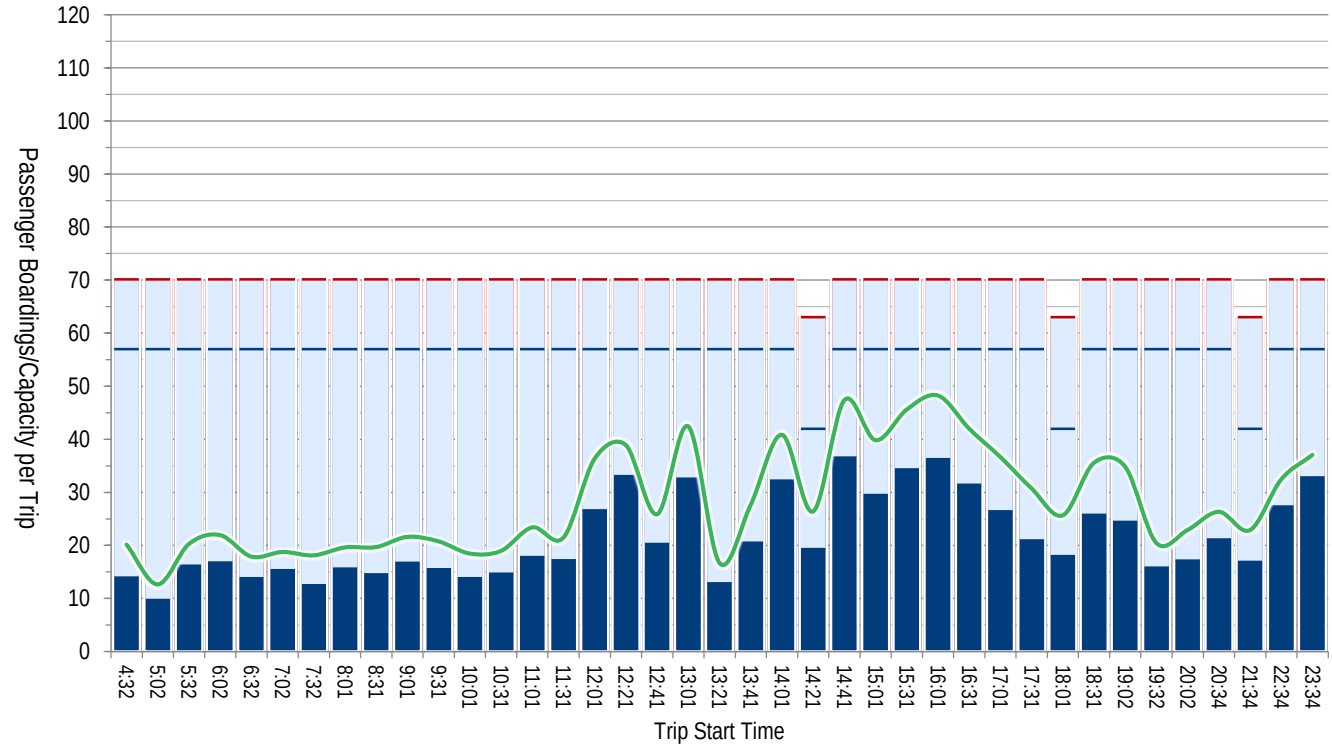


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

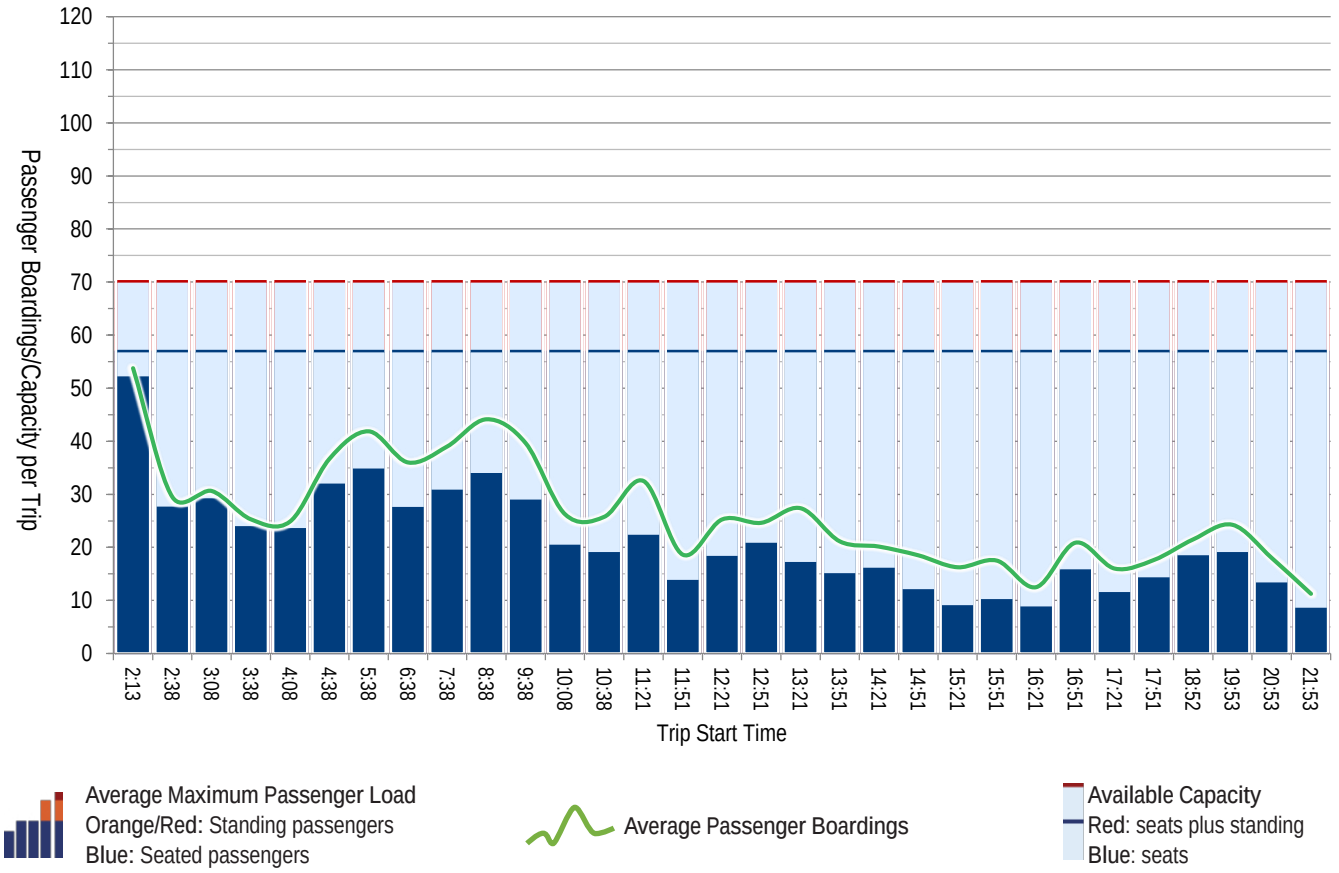
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

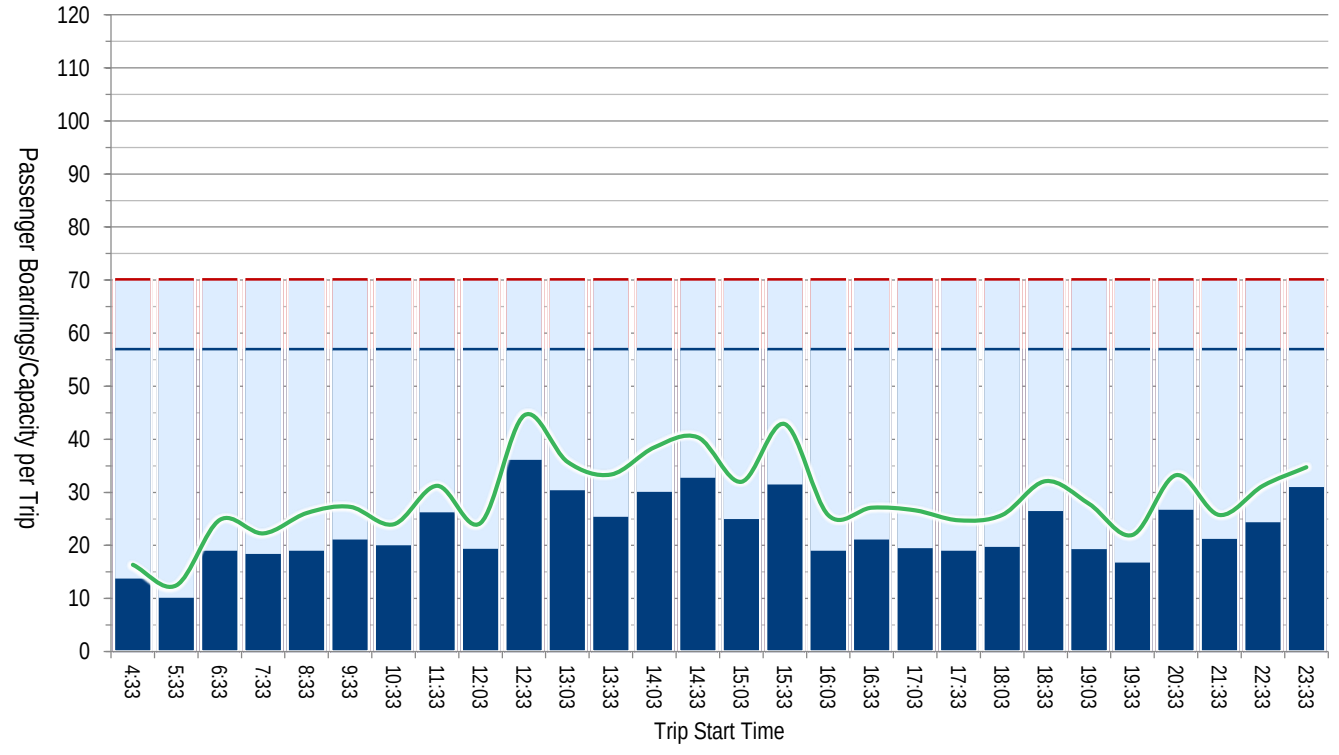
Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



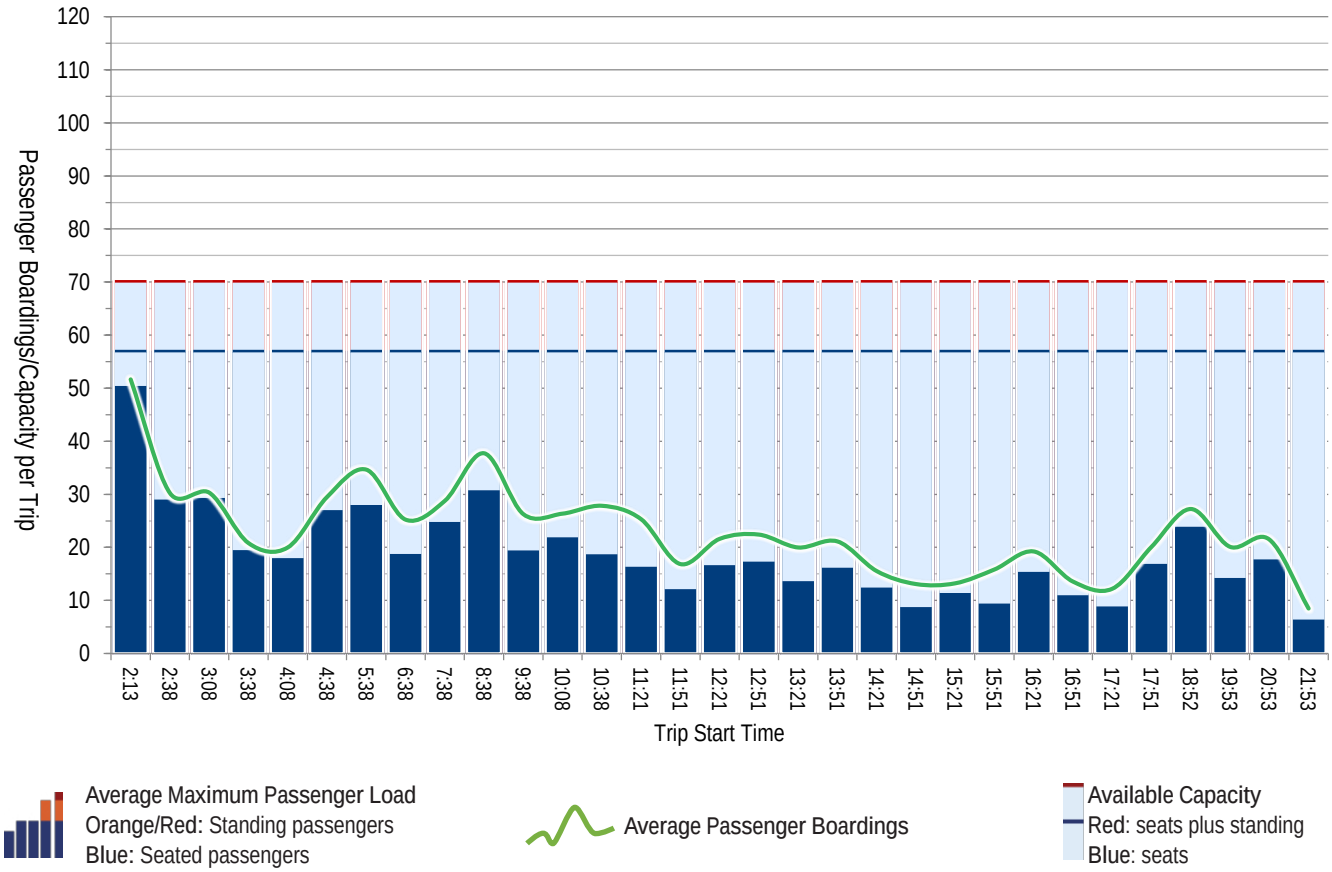
Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday



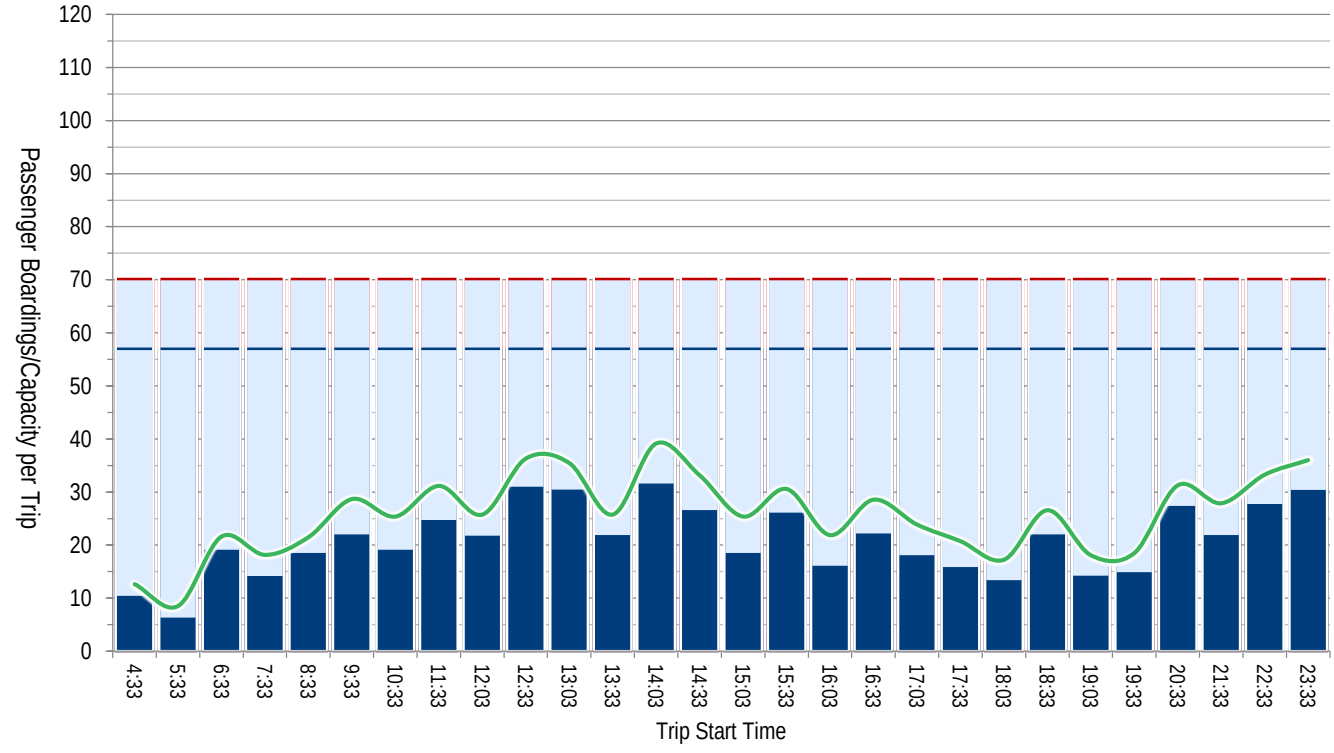
Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday



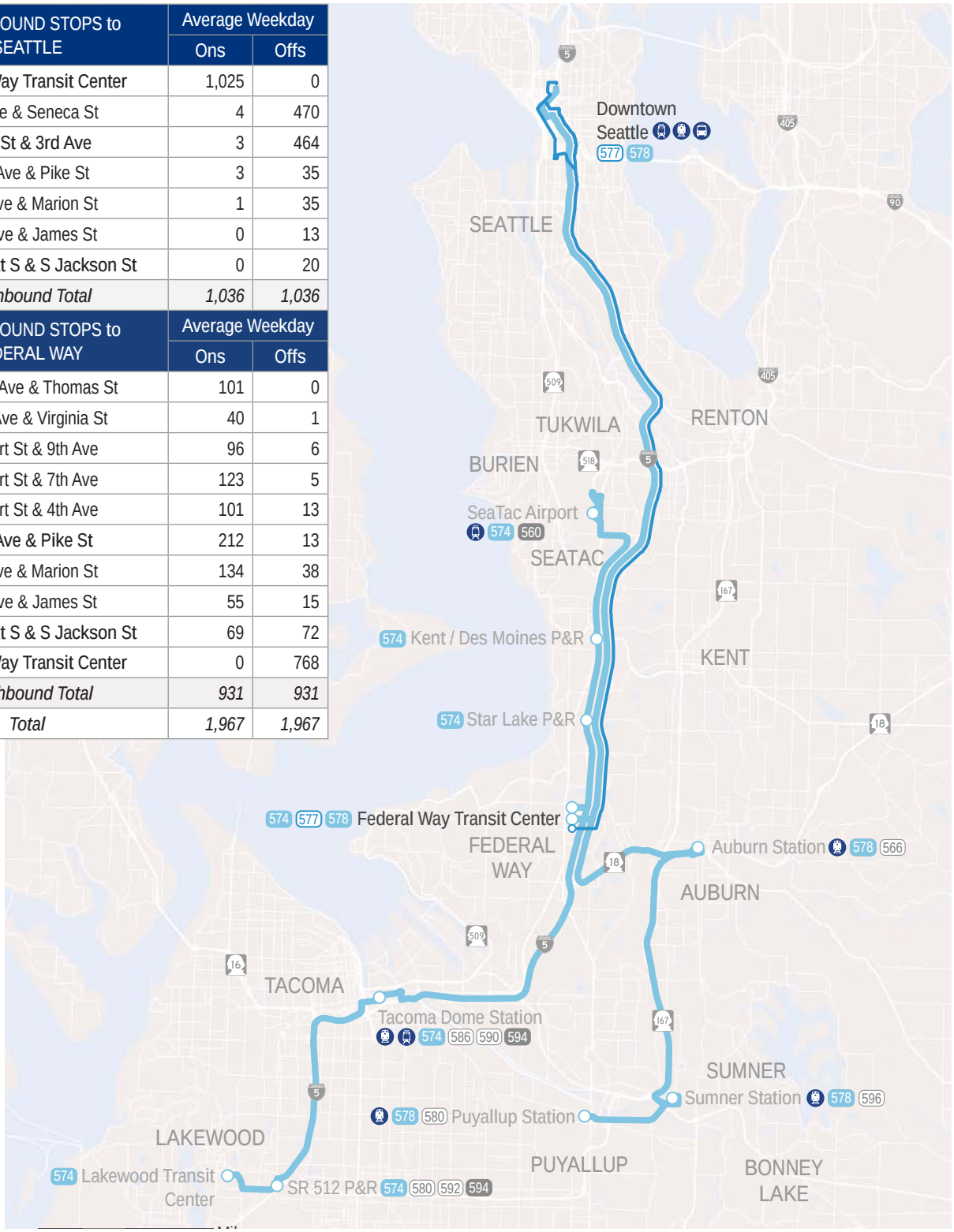
Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



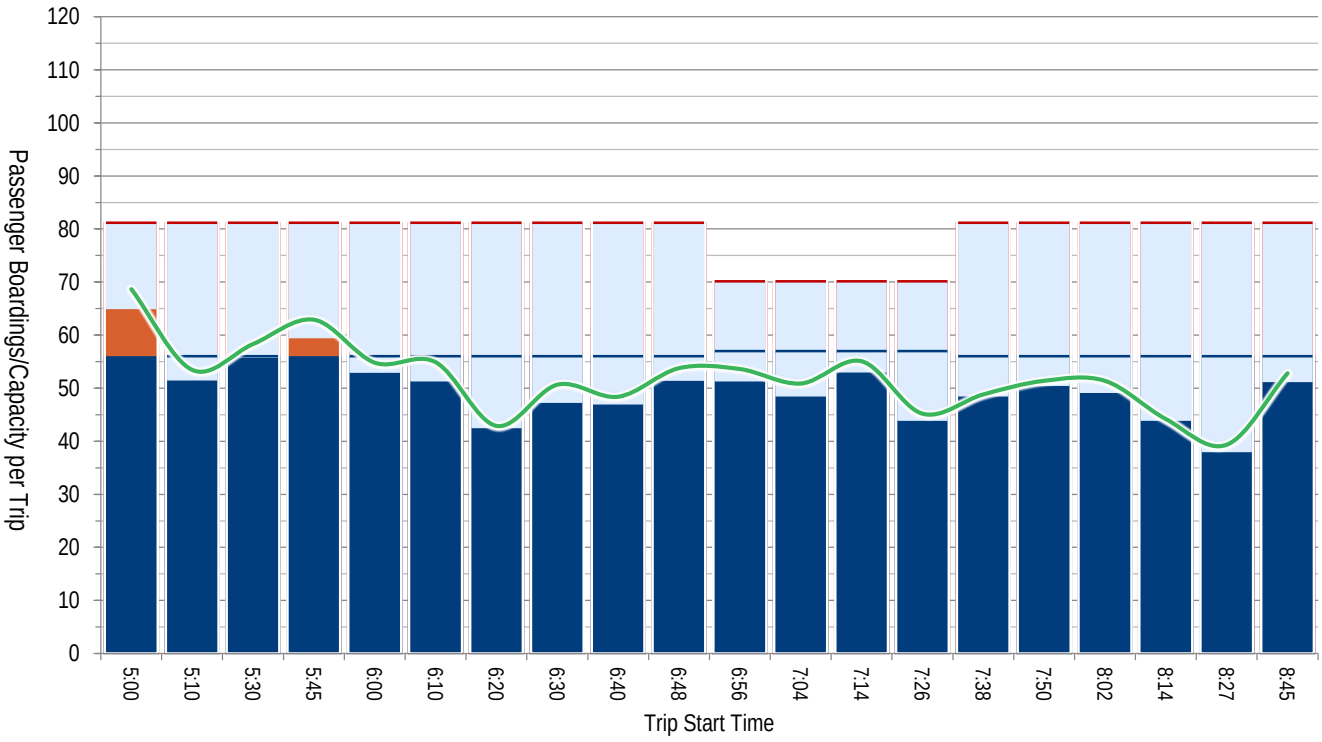
Route 577 Federal Way - Seattle

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	1,694	1,761	1,866	1,967
	Average Saturday Boardings	588	558	587	643
	Average Sunday Boardings	405	377	407	464
	Annual Boardings	488,401	503,600	529,940	

NORTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Federal Way Transit Center	1,025	0
5th Ave & Seneca St	4	470
Pine St & 3rd Ave	3	464
2nd Ave & Pike St	3	35
2nd Ave & Marion St	1	35
2nd Ave & James St	0	13
2nd Ave Ext S & S Jackson St	0	20
Northbound Total	*1,036*	*1,036*
SOUTHBOUND STOPS to FEDERAL WAY	**Average Weekday**	
	Ons	Offs
Fairview Ave & Thomas St	101	0
Boren Ave & Virginia St	40	1
Stewart St & 9th Ave	96	6
Stewart St & 7th Ave	123	5
Stewart St & 4th Ave	101	13
2nd Ave & Pike St	212	13
2nd Ave & Marion St	134	38
2nd Ave & James St	55	15
2nd Ave Ext S & S Jackson St	69	72
Federal Way Transit Center	0	768
Southbound Total	*931*	*931*
Total	*1,967*	*1,967*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

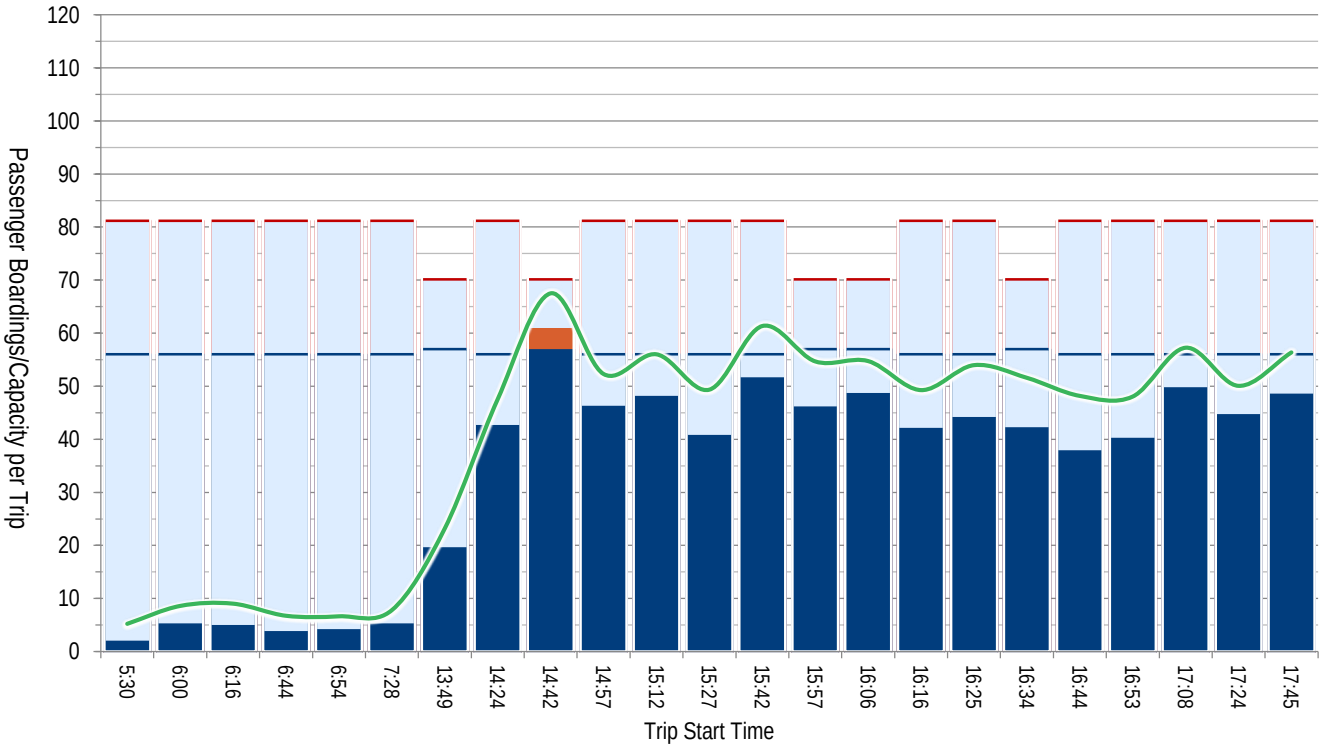


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

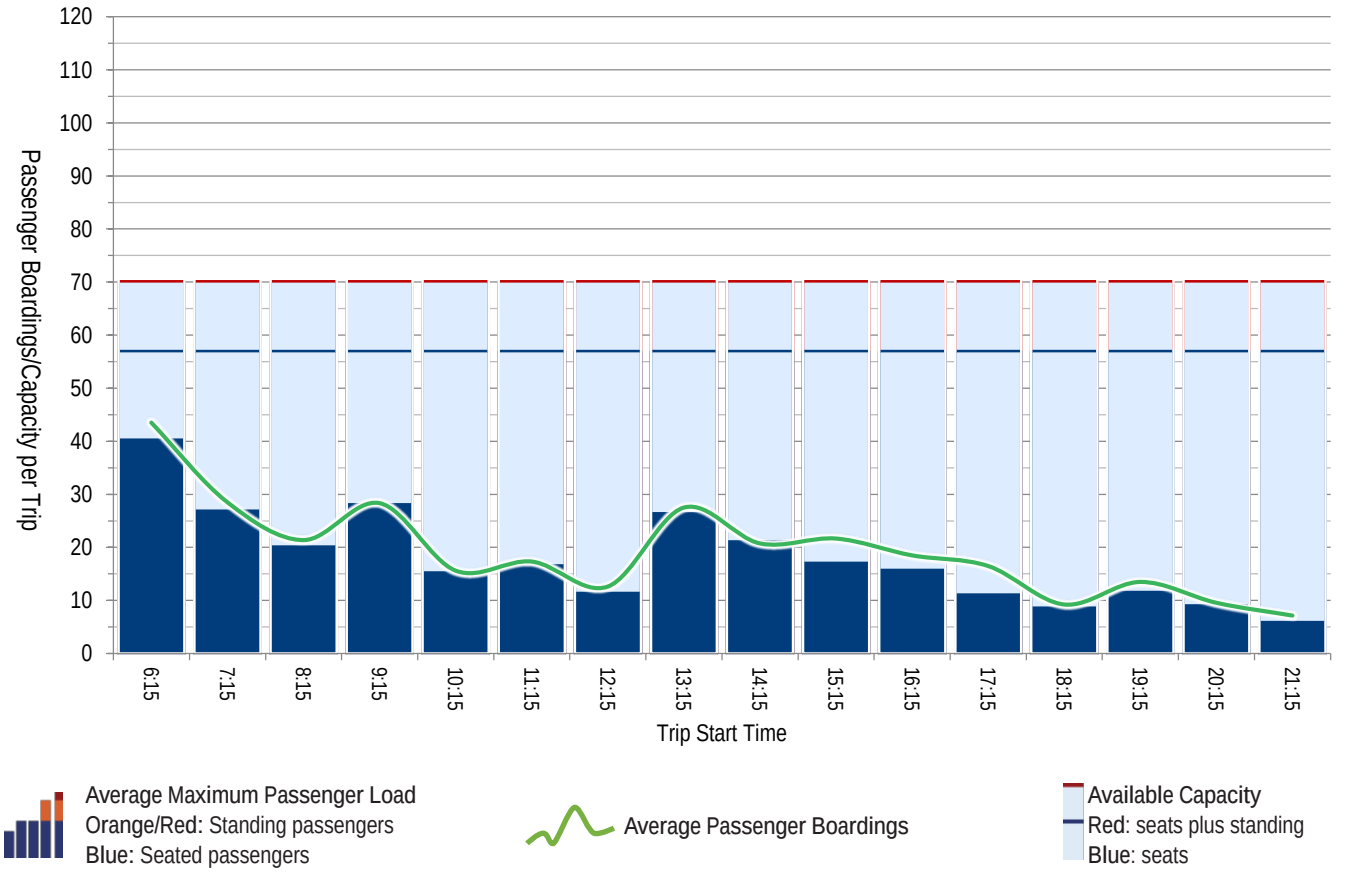
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

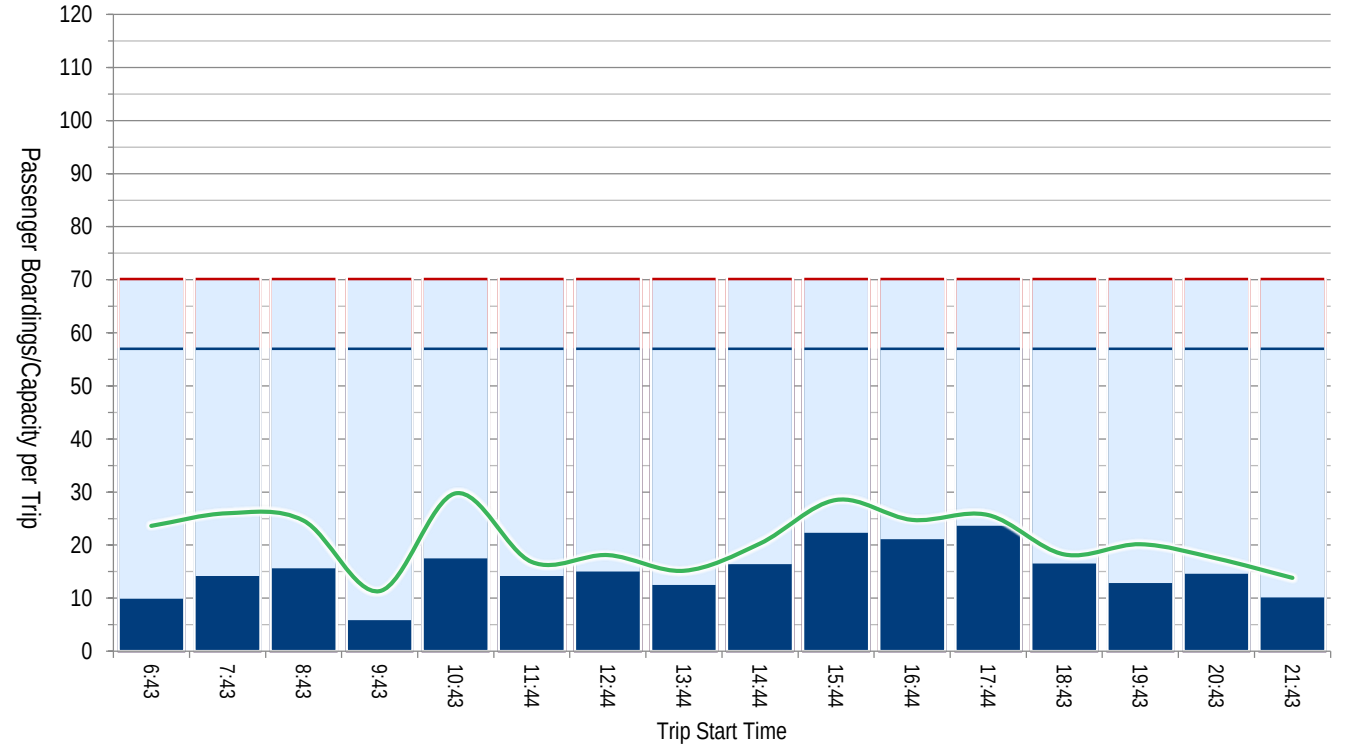
Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



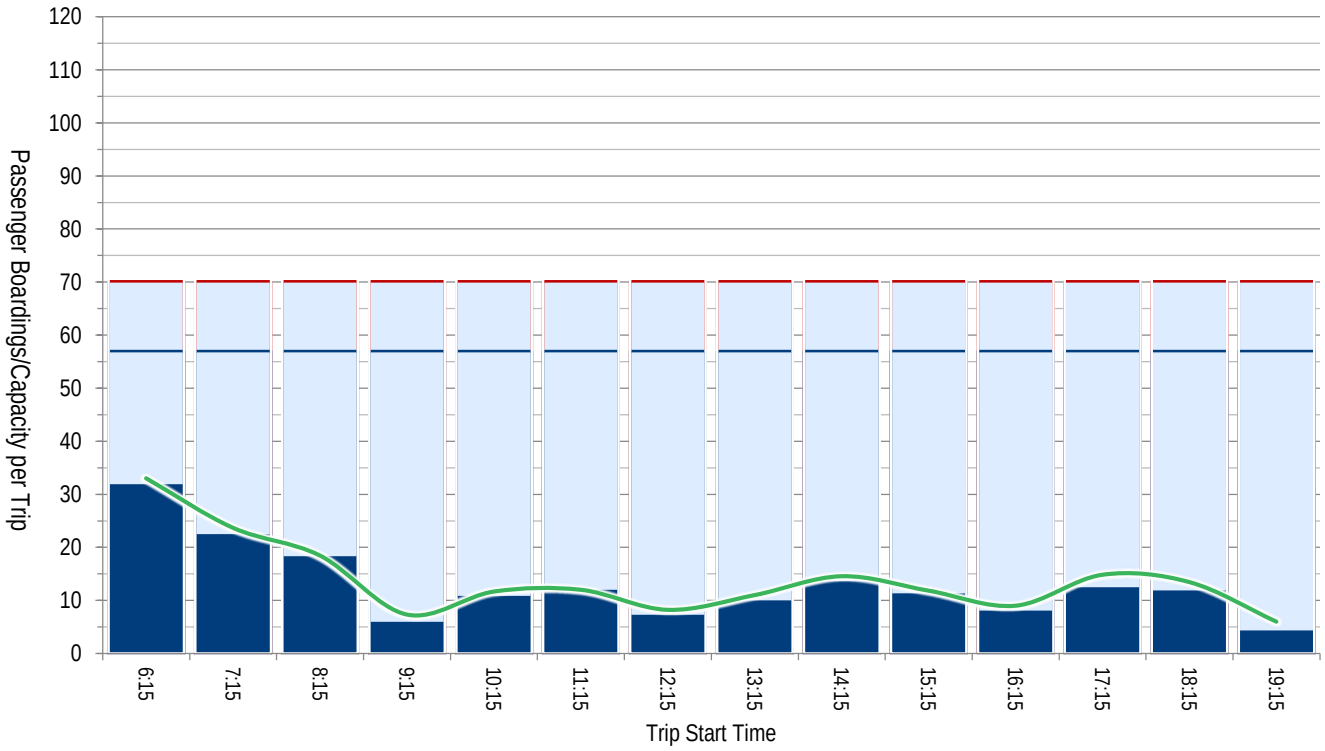
Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday



Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday

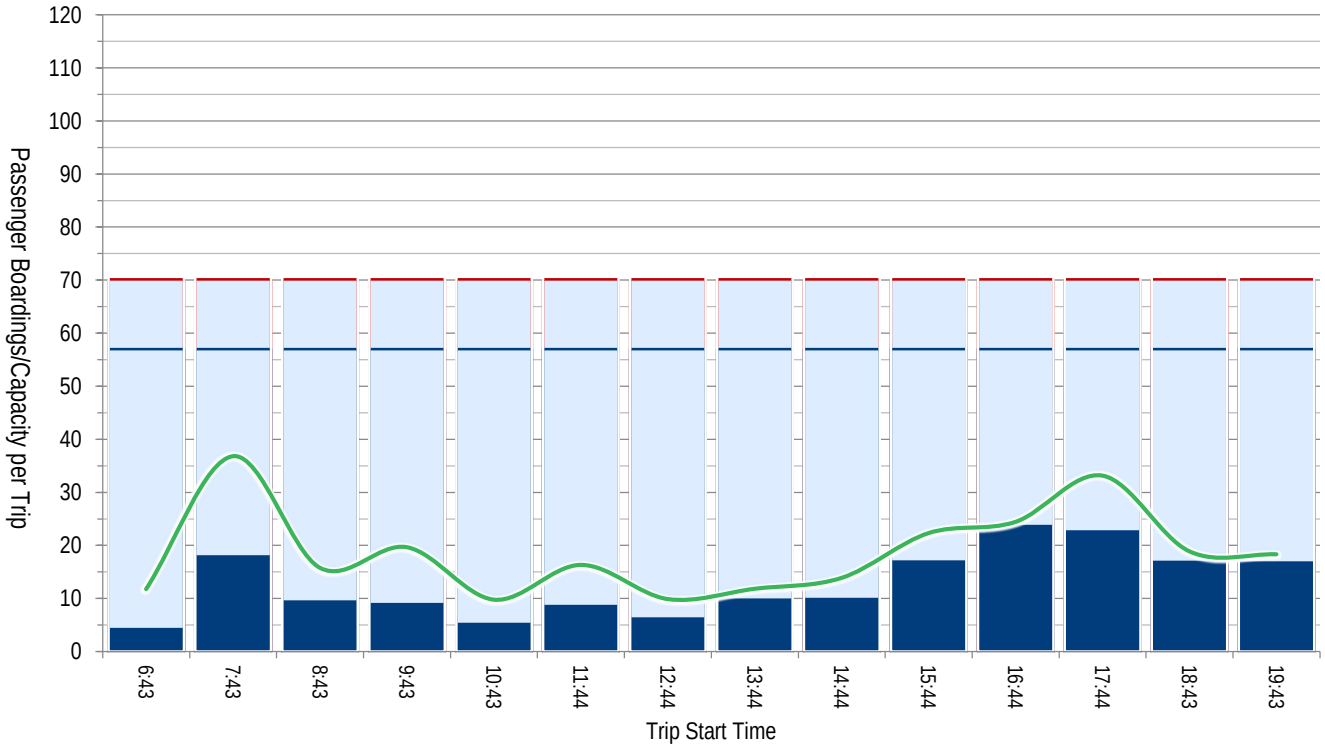


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



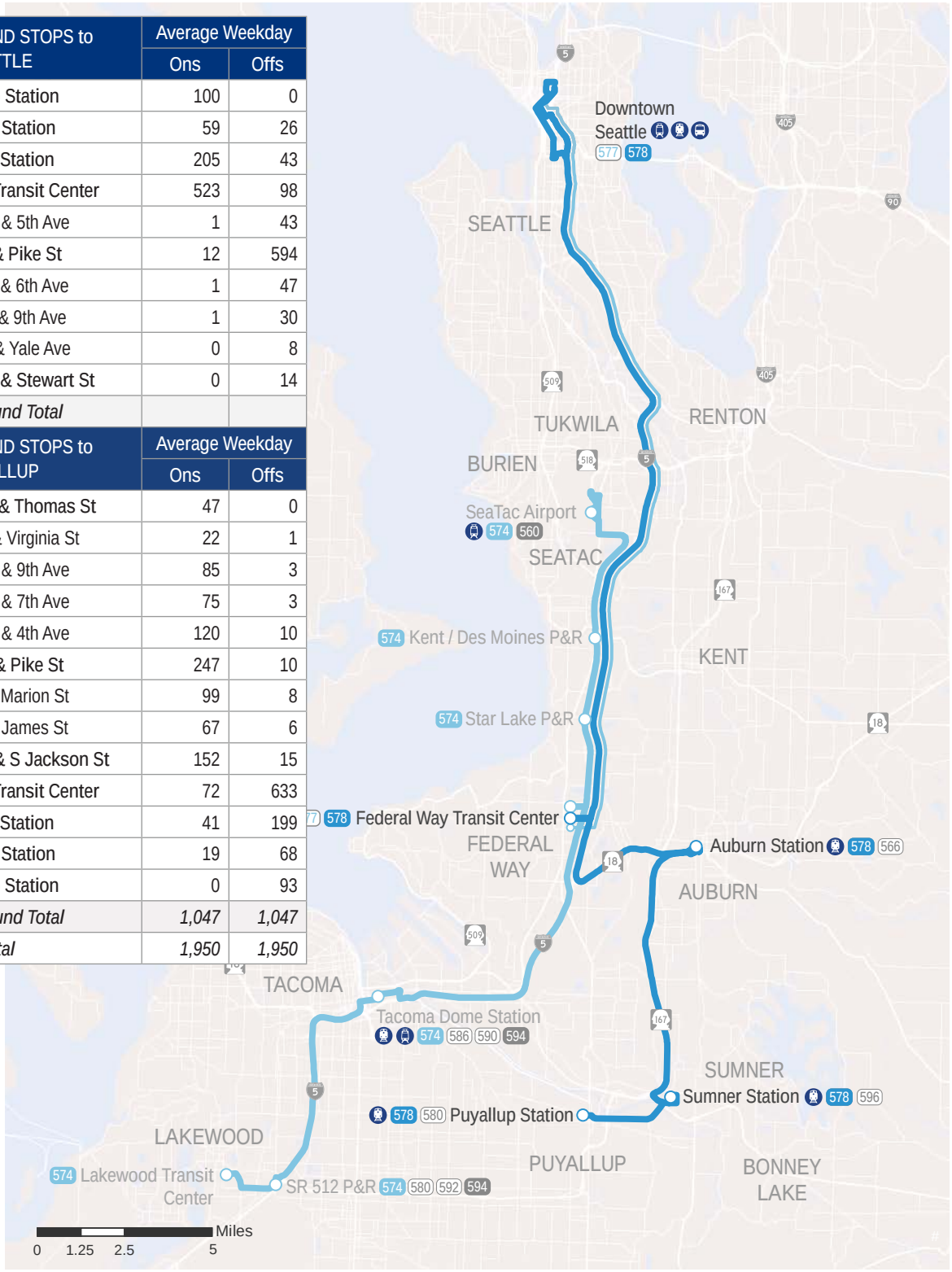
I-5 South King

Route 578 Puyallup - Seattle

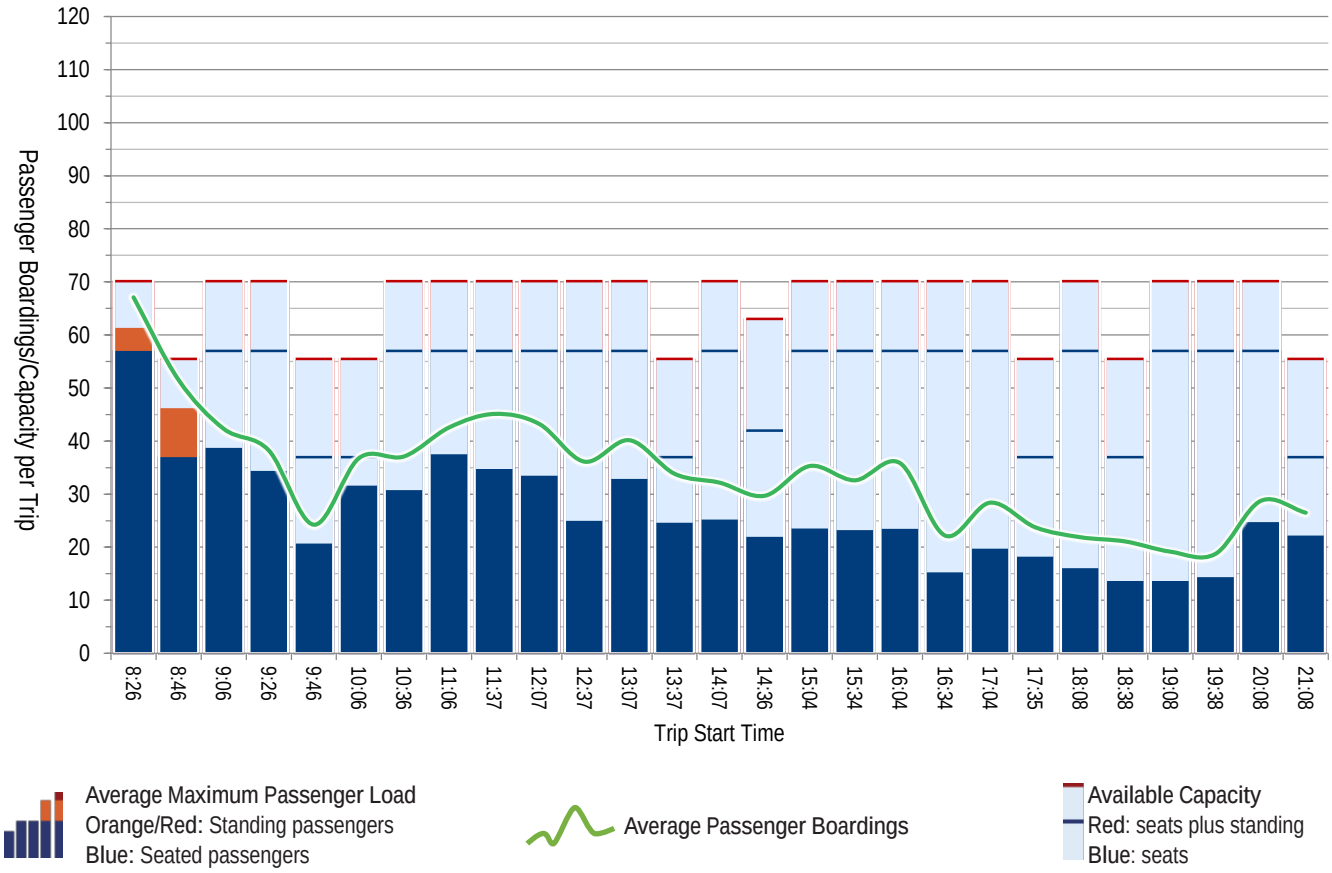
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	1,796	1,848	1,974	1,950
	Average Saturday Boardings	1,168	1,220	1,265	1,314
	Average Sunday Boardings	944	979	1,029	1,091
	Annual Boardings	574,684	590,546	628,912	

NORTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Puyallup Station	100	0
Sumner Station	59	26
Auburn Station	205	43
Federal Way Transit Center	523	98
Seneca St & 5th Ave	1	43
4th Ave & Pike St	12	594
Olive Way & 6th Ave	1	47
Howell St & 9th Ave	1	30
Howell St & Yale Ave	0	8
Eastlake Ave & Stewart St	0	14
Northbound Total		

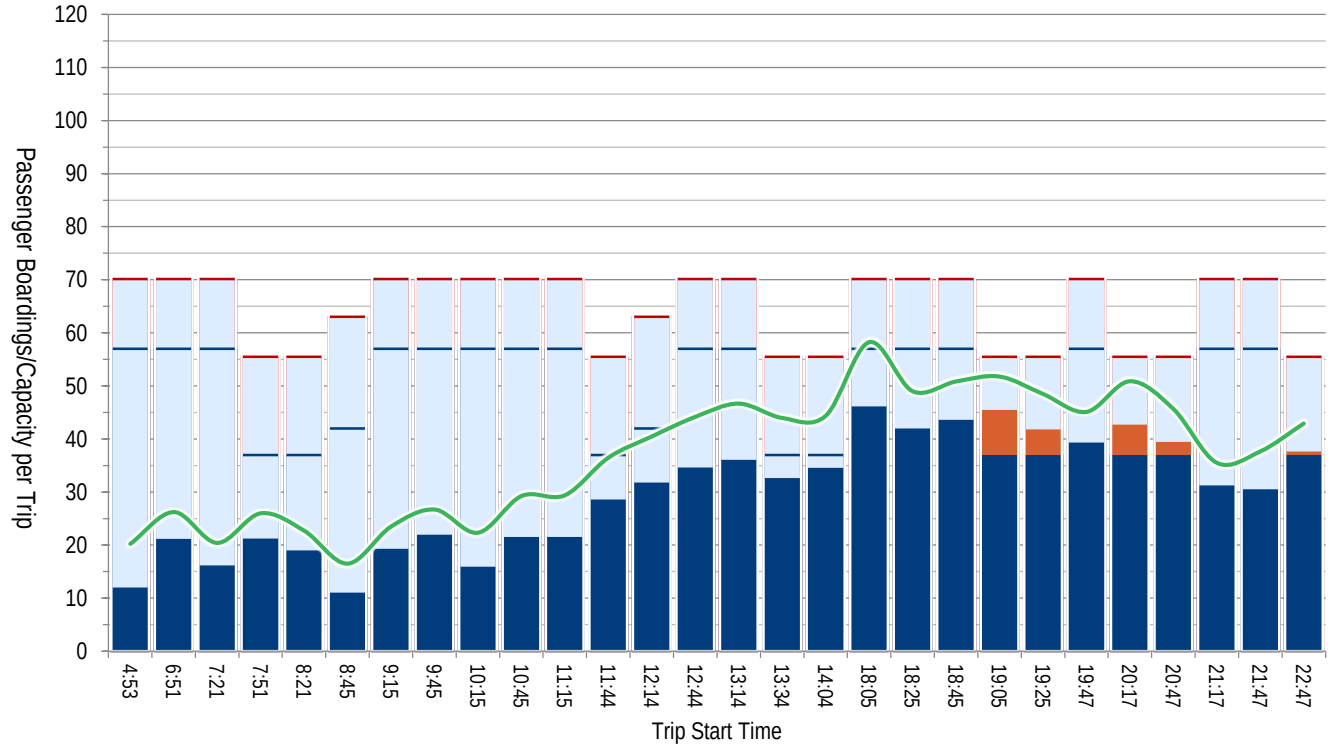
SOUTHBOUND STOPS to PUYALLUP	Average Weekday	
	Ons	Offs
Fairview Ave & Thomas St	47	0
Boren Ave & Virginia St	22	1
Stewart St & 9th Ave	85	3
Stewart St & 7th Ave	75	3
Stewart St & 4th Ave	120	10
2nd Ave & Pike St	247	10
2nd Ave & Marion St	99	8
2nd Ave & James St	67	6
2nd Ave Ext S & S Jackson St	152	15
Federal Way Transit Center	72	633
Auburn Station	41	199
Sumner Station	19	68
Puyallup Station	0	93
Southbound Total	*1,047*	*1,047*
Total	*1,950*	*1,950*



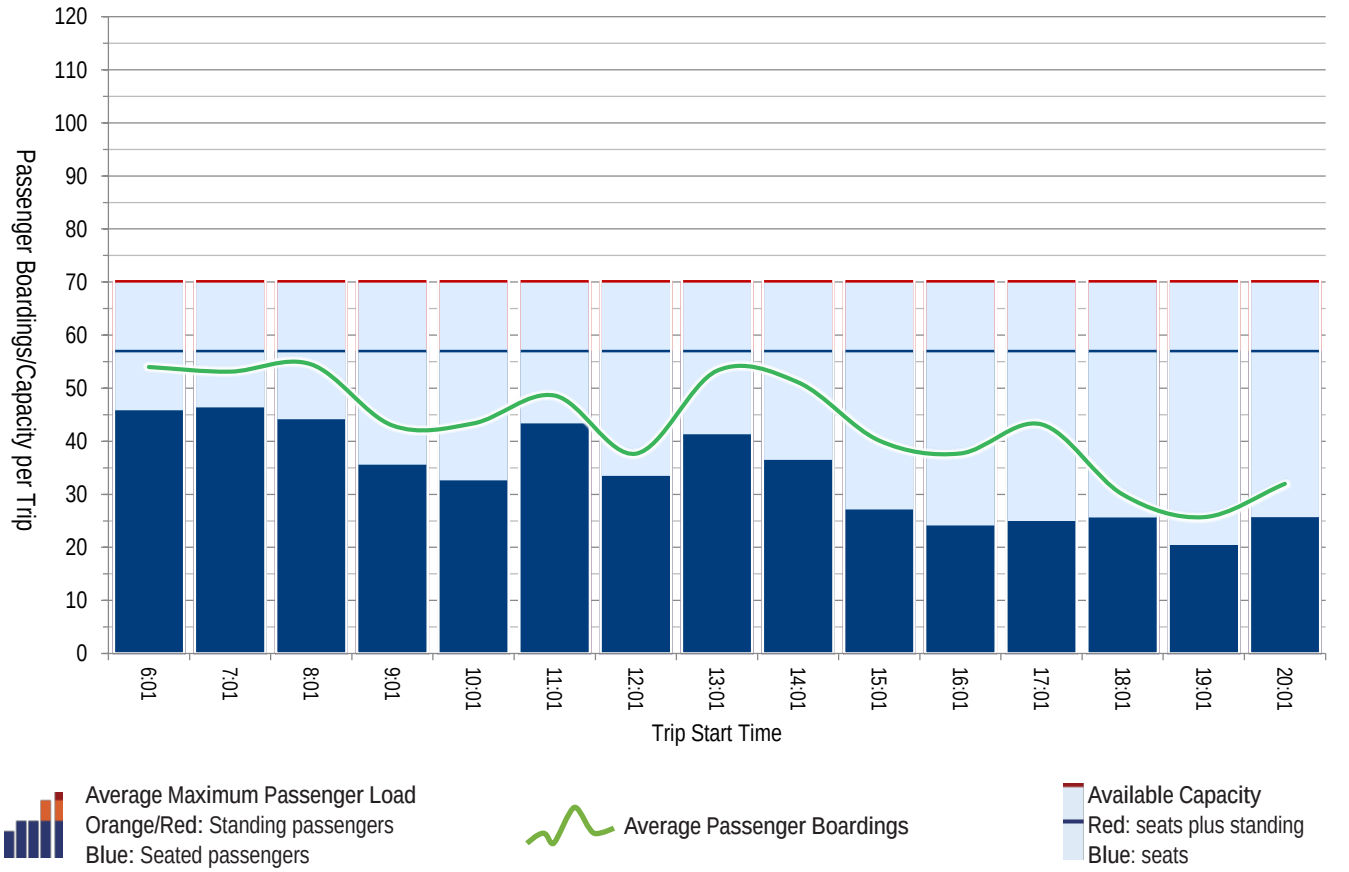
Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday



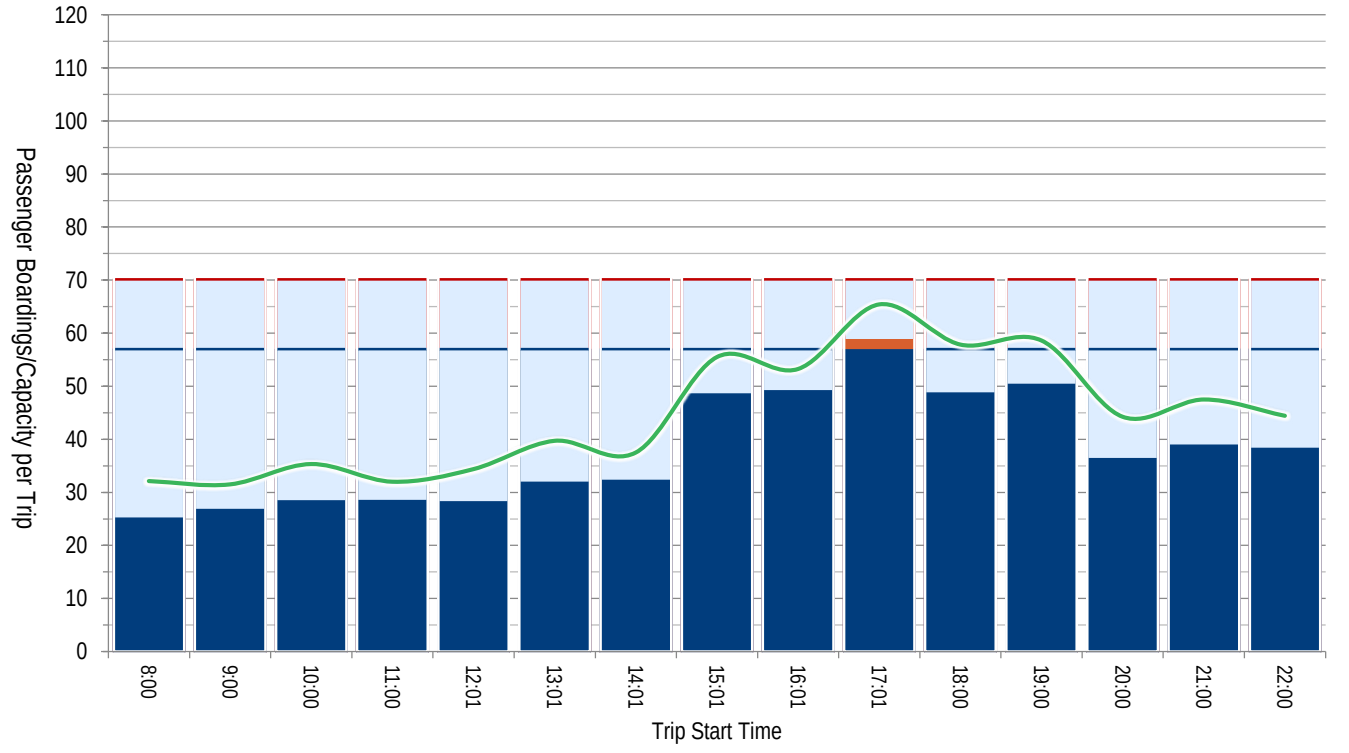
Weekday Southbound Average Trip Ridership & Maximum Passenger Loads



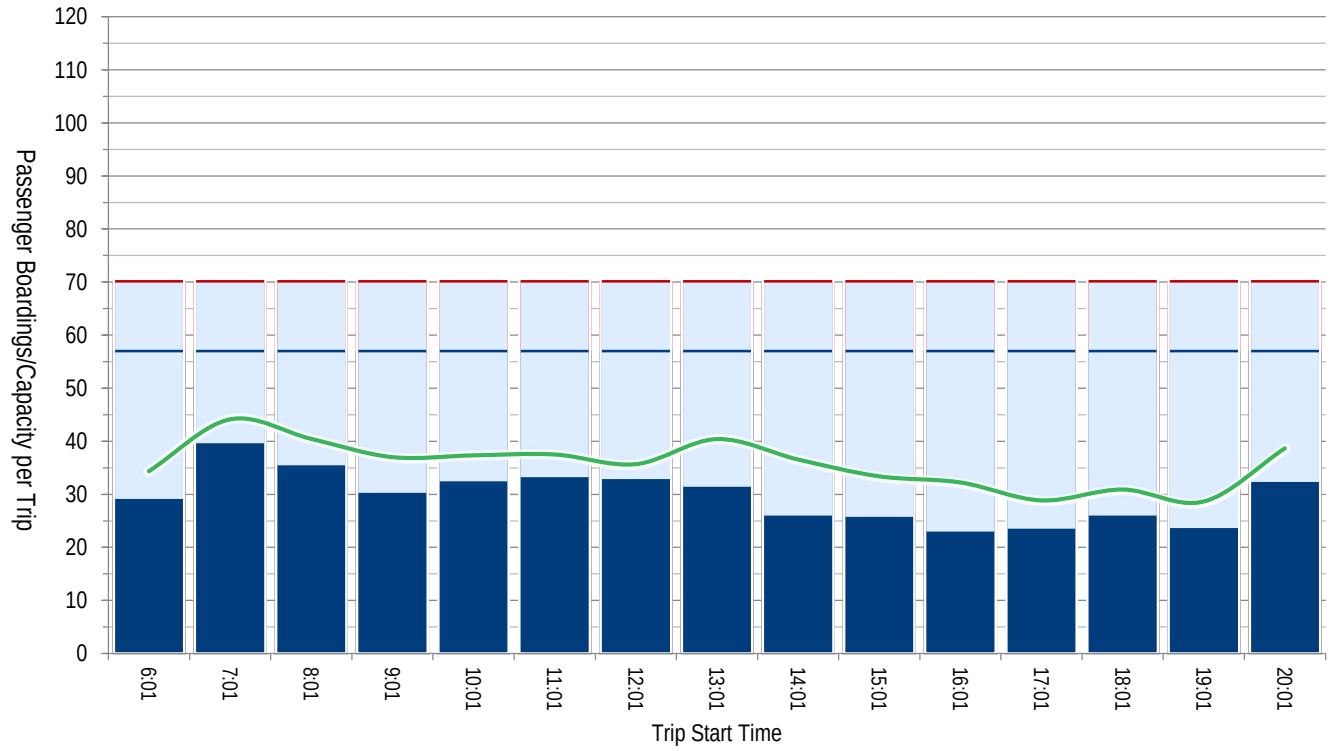
Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday



Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday

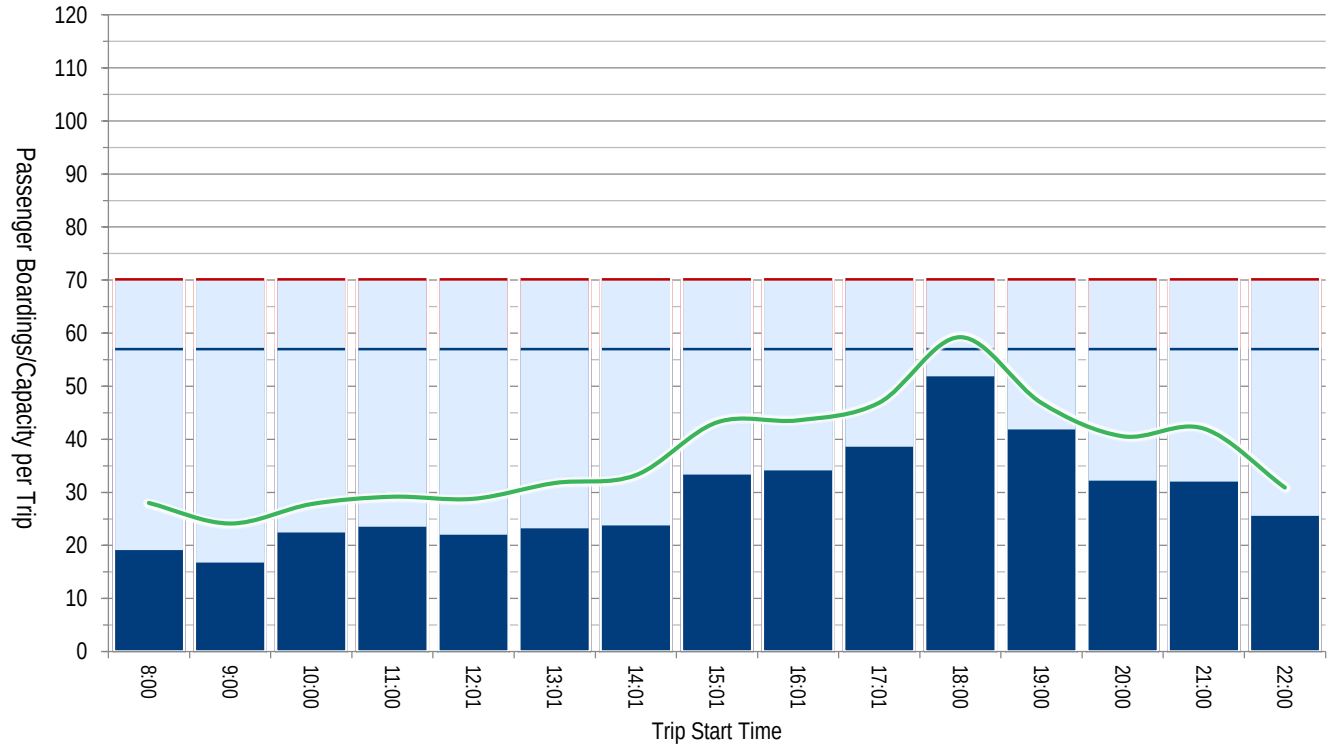


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

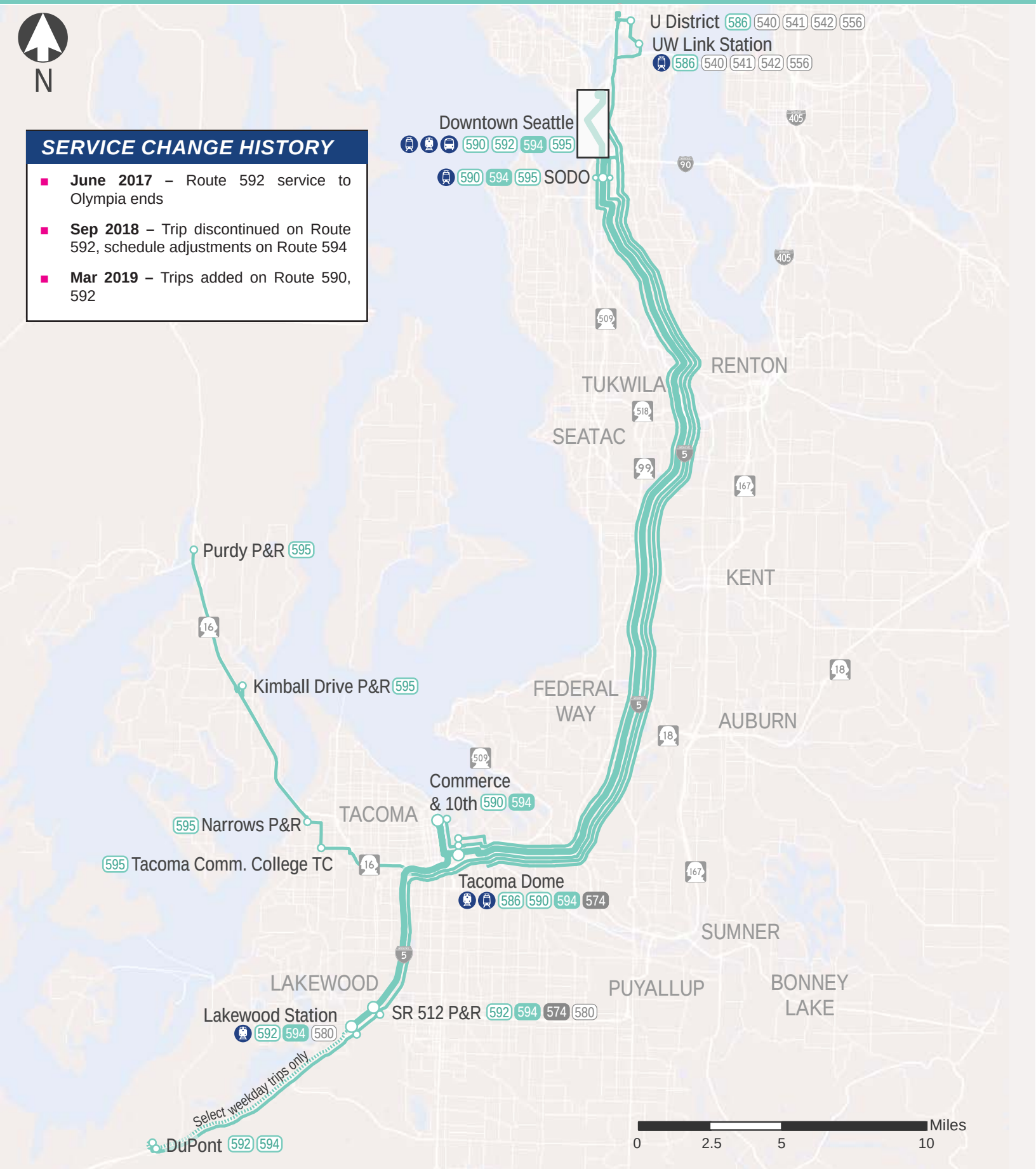
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



I-5 South - Pierce County



SERVICE CHANGE HISTORY

- **June 2017 –** Route 592 service to Olympia ends
- **Sep 2018 –** Trip discontinued on Route 592, schedule adjustments on Route 594
- **Mar 2019 –** Trips added on Route 590, 592

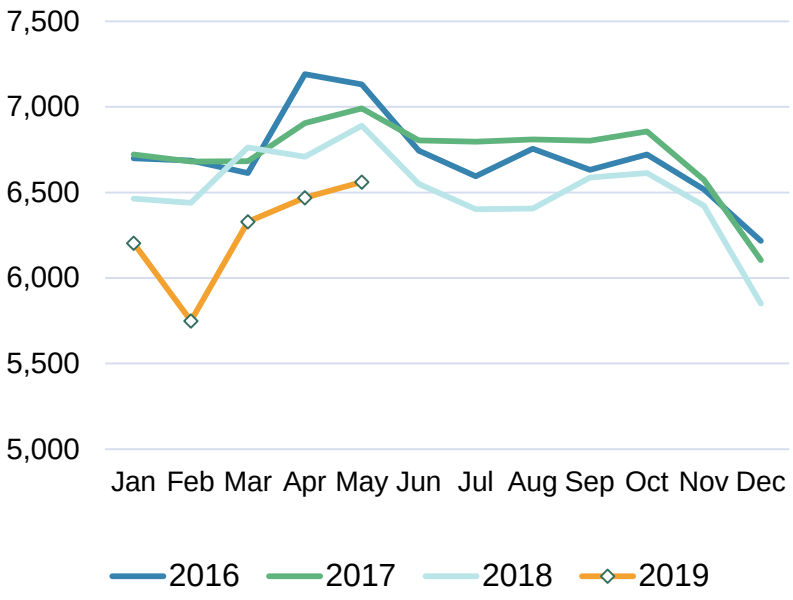
SERVICE CHARACTERISTICS

	Direction	Route	Frequency & Span
Weekday	North	586	30
		590	20 \| 5 - 10 \| 30
		592	20 \| 15
		594	20 \| 30
		595	20-30
	South	586	30
		590	15 \| 6 - 10
		592	15 \| 20
		594	60 \| 30 \| 15-20 \| 20 \| 30
		595	30

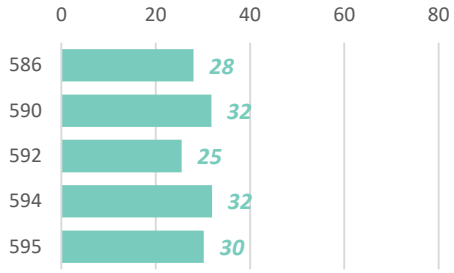
	Direction	Route	Frequency & Span
Sat	North	594	60 \| 30
	South	594	60 \| 30

	Direction	Route	Frequency & Span
Sun	North	594	60 \| 30
	South	594	60 \| 30

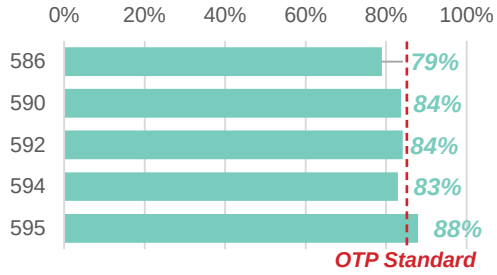
RIDERSHIP TRENDS



PASSENGERS PER TRIP



ON-TIME PERFORMANCE



PROPOSED 2020 CHANGES

- Corridor-wide - Evaluate passenger loads and running time to better match service with customer demand and actual road conditions

LONG TERM CORRIDOR OUTLOOK

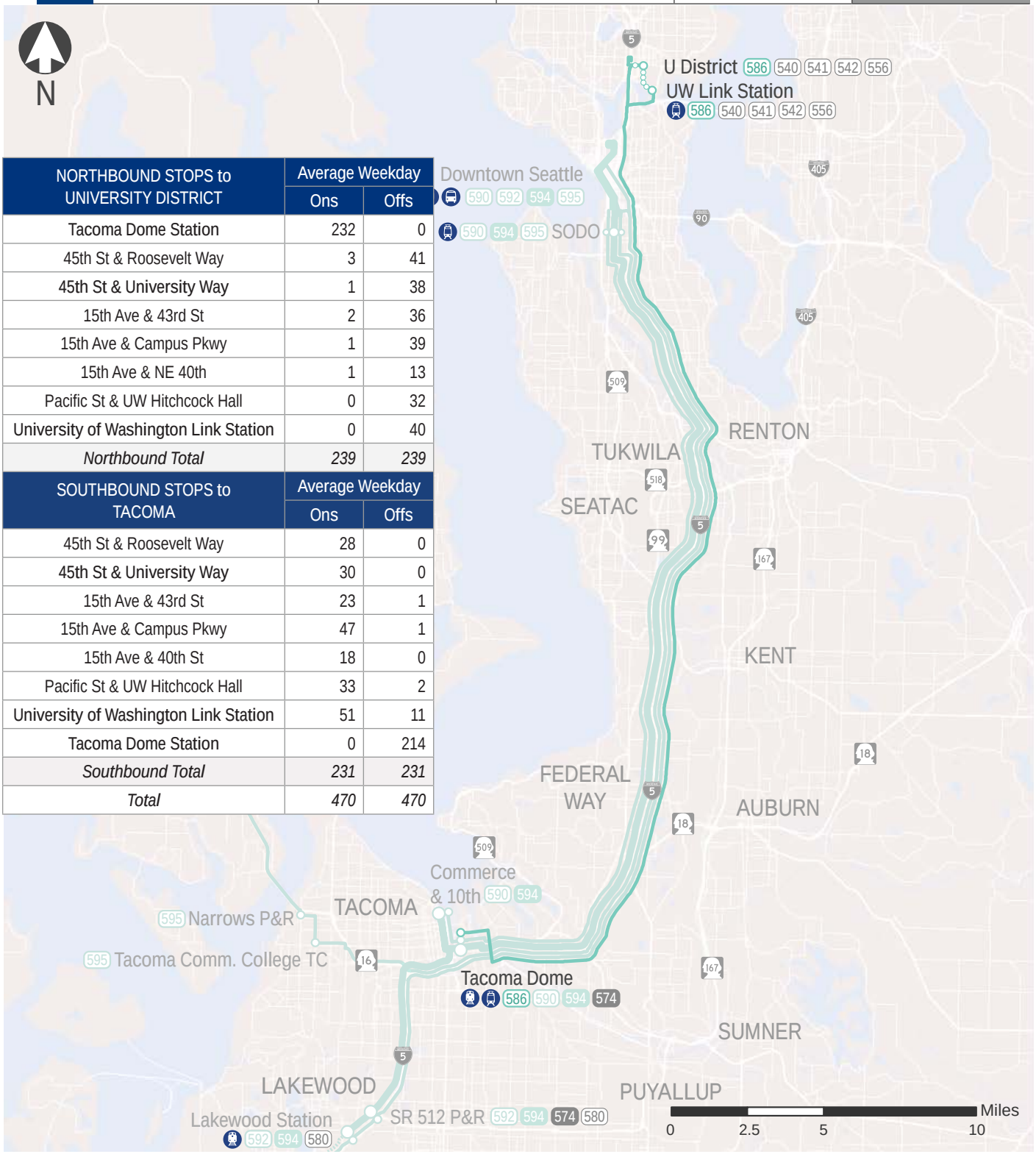
- **2022 –** Hilltop Tacoma Link Extension opens
- **2024 –** Federal Way Link Extension opens
- **2030 –** Tacoma Dome Link Extension opens
- **2036 –** Sounder extension to DuPont opens

I-5 South Pierce

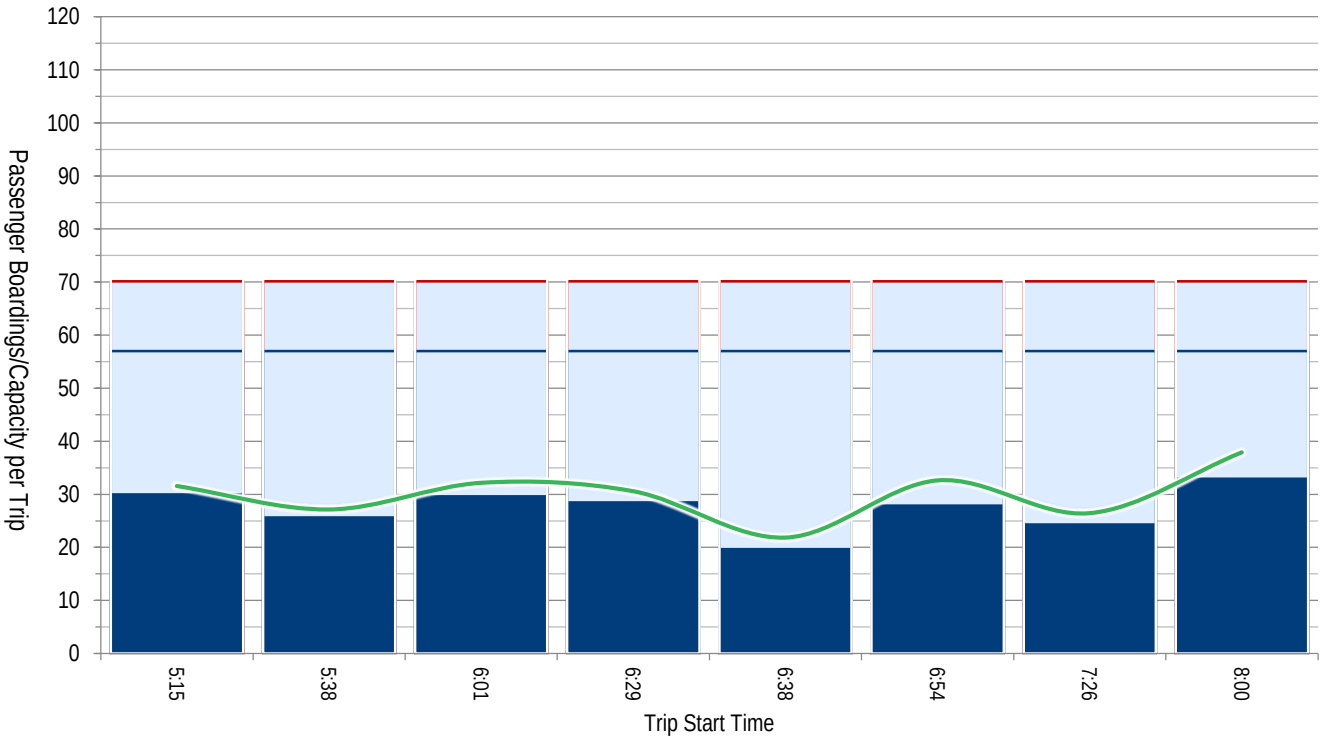
Route 586 Tacoma - U District

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	**446**	**458**	**461**	**470**
	Average Saturday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Average Sunday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Annual Boardings	**113,823**	**116,249**	**117,569**	

NORTHBOUND STOPS to UNIVERSITY DISTRICT	Average Weekday	
	Ons	Offs
Tacoma Dome Station	232	0
45th St & Roosevelt Way	3	41
45th St & University Way	1	38
15th Ave & 43rd St	2	36
15th Ave & Campus Pkwy	1	39
15th Ave & NE 40th	1	13
Pacific St & UW Hitchcock Hall	0	32
University of Washington Link Station	0	40
Northbound Total	*239*	*239*
SOUTHBOUND STOPS to TACOMA	**Average Weekday**	
	Ons	Offs
45th St & Roosevelt Way	28	0
45th St & University Way	30	0
15th Ave & 43rd St	23	1
15th Ave & Campus Pkwy	47	1
15th Ave & 40th St	18	0
Pacific St & UW Hitchcock Hall	33	2
University of Washington Link Station	51	11
Tacoma Dome Station	0	214
Southbound Total	*231*	*231*
Total	*470*	*470*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

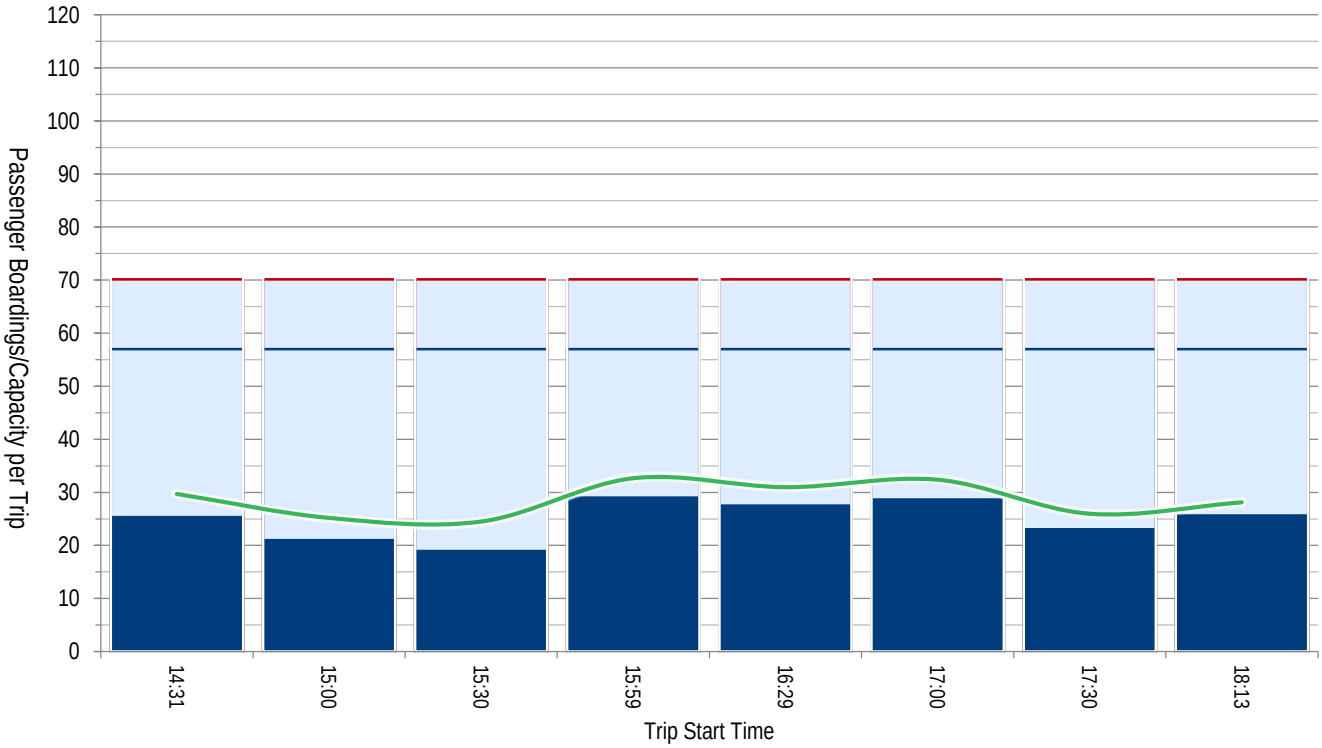


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads

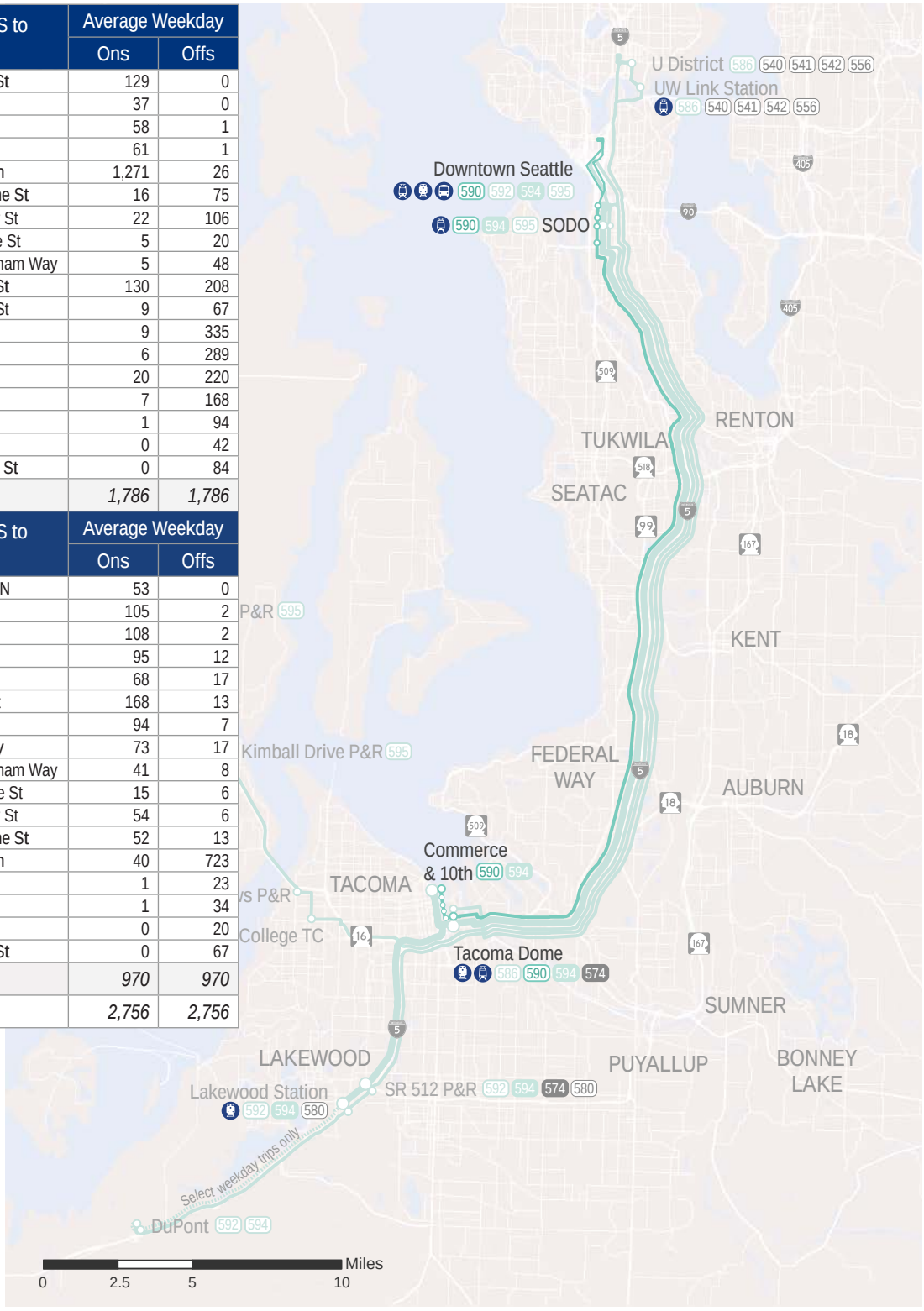


Route 590 Tacoma - Seattle

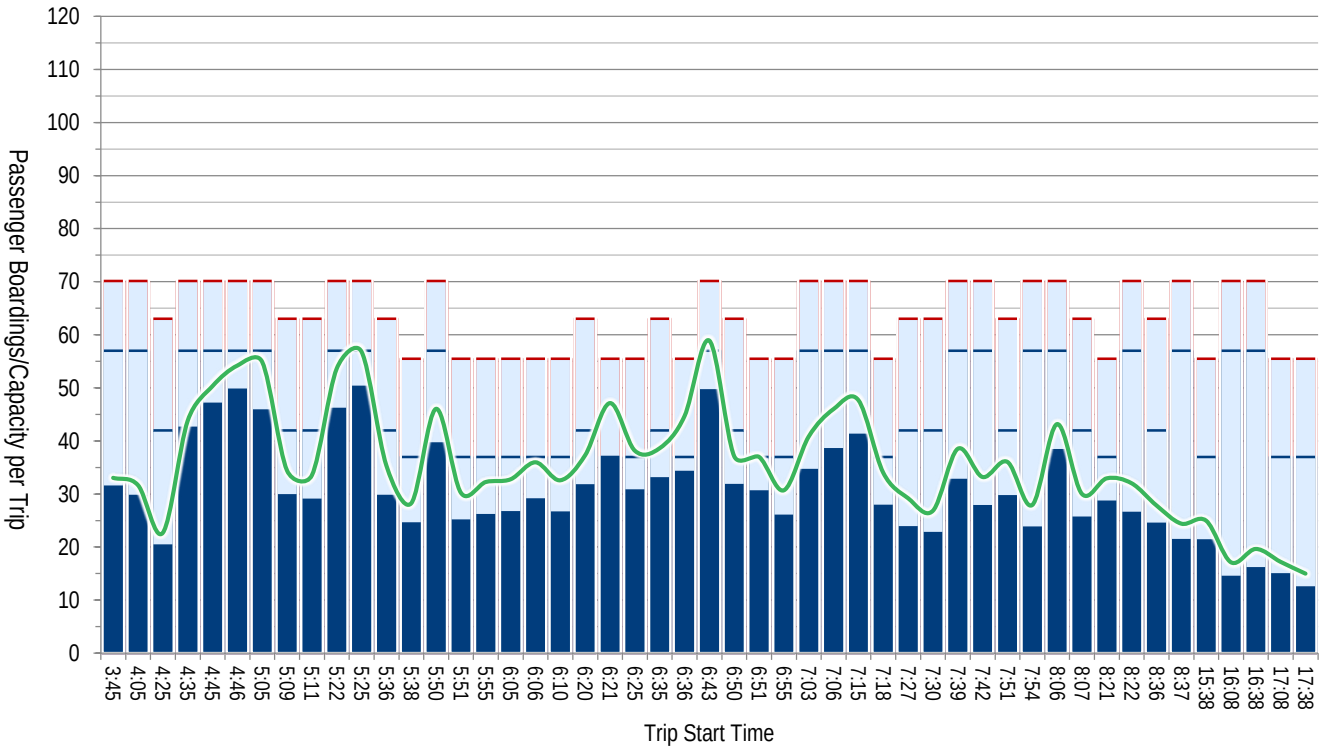
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	2,789	2,853	2,795	2,756
	Average Saturday Boardings	N/A	N/A	N/A	N/A
	Average Sunday Boardings	N/A	N/A	N/A	N/A
	Annual Boardings	711,131	724,644	712,737	

NORTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
Commerce St & 10th St	129	0
Pacific Ave & 14th St	37	0
Pacific Ave & 19th St	58	1
Pacific Ave & 24th St	61	1
Tacoma Dome Station	1,271	26
SODO Busway & Spokane St	16	75
SODO Busway & Lander St	22	106
SODO Busway & Holgate St	5	20
SODO Busway & Royal Brougham Way	5	48
4th Ave & S Jackson St	130	208
4th Ave & Washington St	9	67
4th Ave & Cherry St	9	335
4th Ave & Seneca St	6	289
4th Ave & Pike St	20	220
Olive Way & 6th Ave	7	168
Howell St & 9th Ave	1	94
Howell St & Yale Ave	0	42
Eastlake Ave & Stewart St	0	84
Northbound Total	*1,786*	*1,786*

SOUTHBOUND STOPS to TACOMA	Average Weekday	
	Ons	Offs
Stewart St & Yale Ave N	53	0
Stewart St & 9th Ave	105	2
Stewart St & 7th Ave	108	2
Stewart St & 4th Ave	95	12
2nd Ave & Stewart St	68	17
2nd Ave & Seneca St	168	13
2nd Ave & Cherry St	94	7
2nd Ave & Yesler Way	73	17
SODO Busway & Royal Brougham Way	41	8
SODO Busway & Holgate St	15	6
SODO Busway & Lander St	54	6
SODO Busway & Spokane St	52	13
Tacoma Dome Station	40	723
Pacific Ave & 24th St	1	23
Pacific Ave & 19th St	1	34
Pacific Ave & 14th St	0	20
Commerce St & 10th St	0	67
Southbound Total	*970*	*970*
Total	*2,756*	*2,756*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

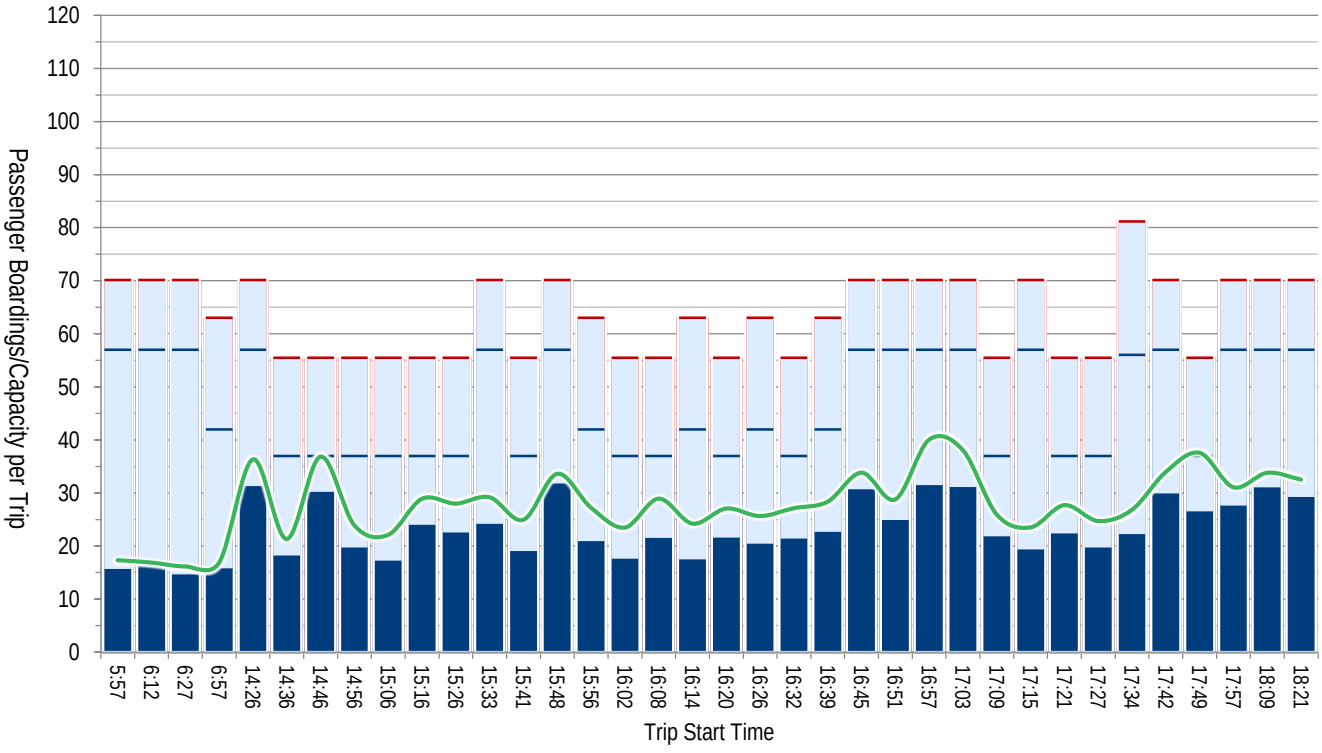


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads

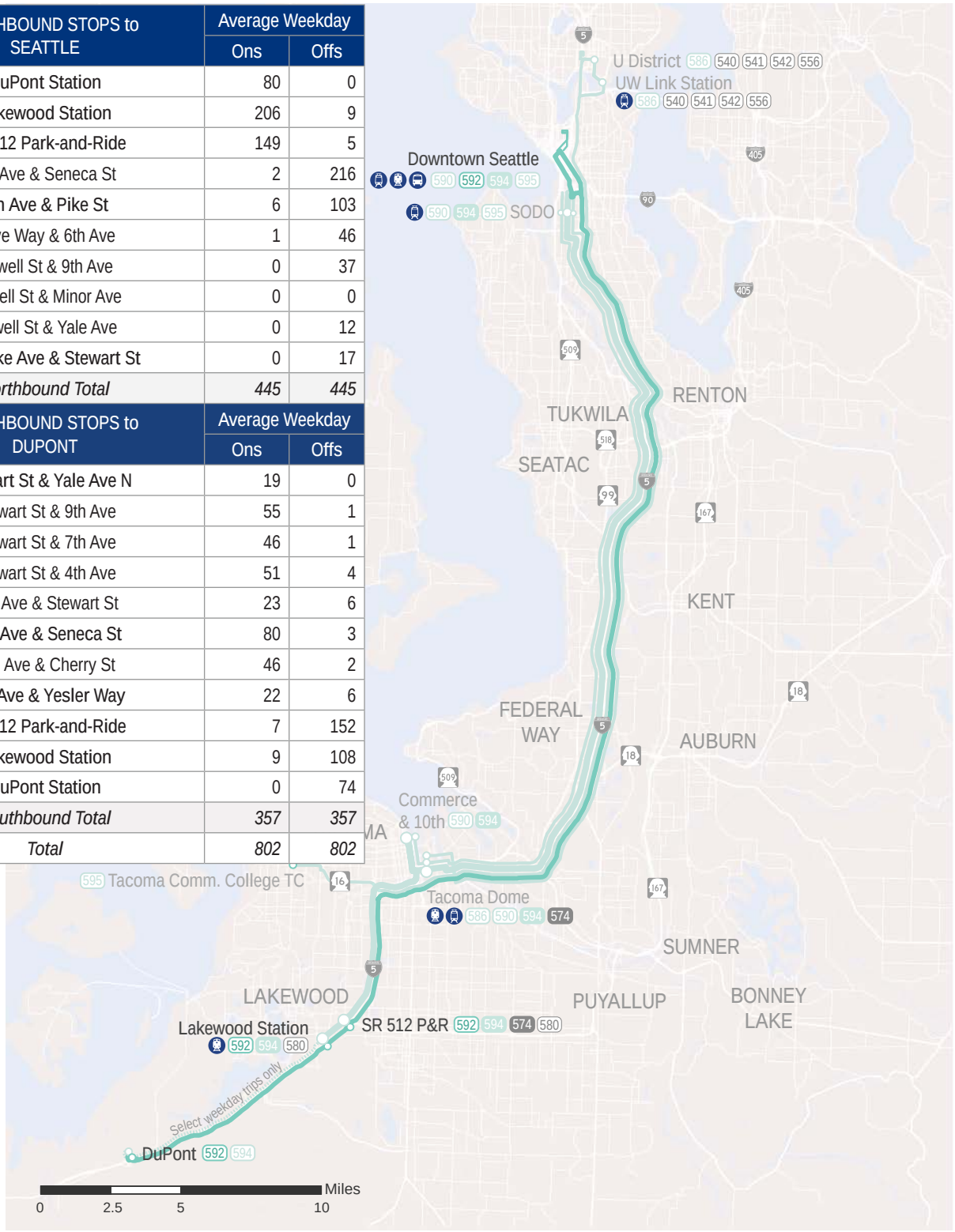


Route 592 DuPont - Lakewood - Seattle

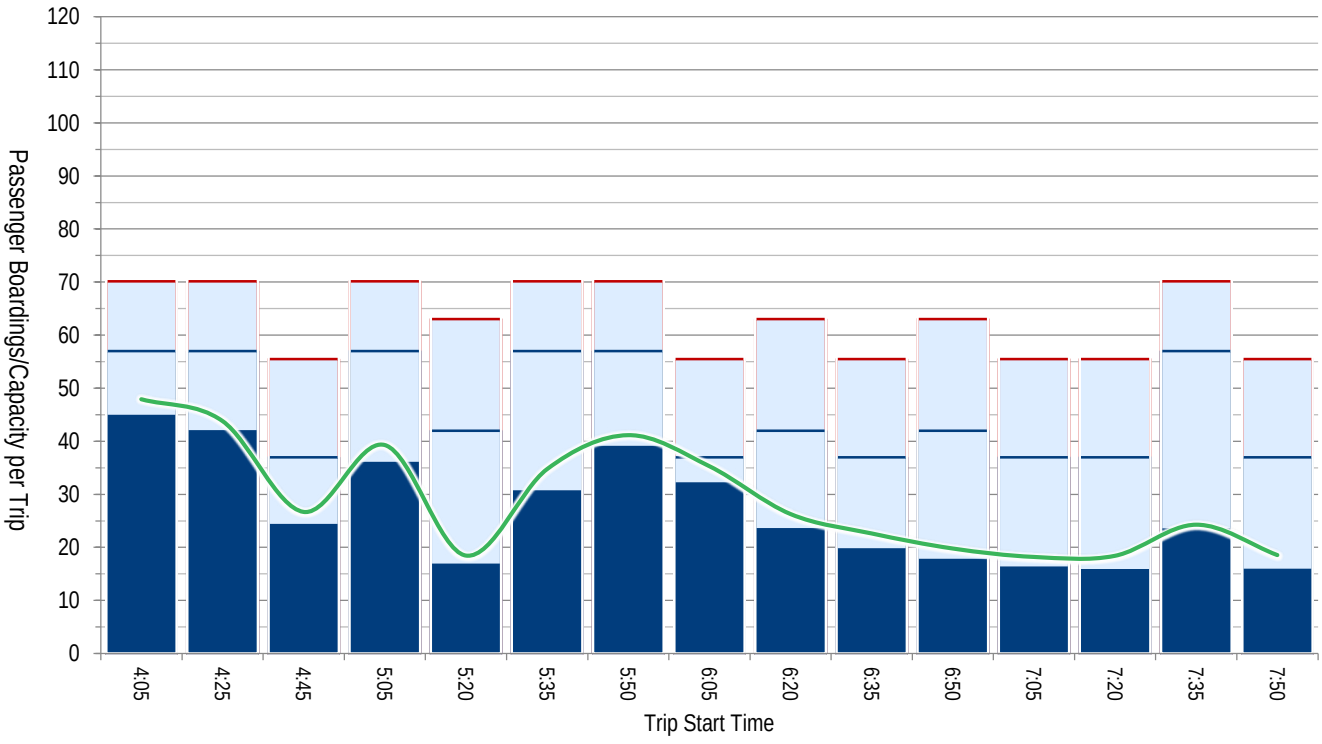
		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	**971**	**940**	**804**	**802**
	Average Saturday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Average Sunday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Annual Boardings	**247,527**	**238,773**	**205,043**	

NORTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
DuPont Station	80	0
Lakewood Station	206	9
SR-512 Park-and-Ride	149	5
5th Ave & Seneca St	2	216
4th Ave & Pike St	6	103
Olive Way & 6th Ave	1	46
Howell St & 9th Ave	0	37
Howell St & Minor Ave	0	0
Howell St & Yale Ave	0	12
Eastlake Ave & Stewart St	0	17
Northbound Total	*445*	*445*

SOUTHBOUND STOPS to DUPONT	Average Weekday	
	Ons	Offs
Stewart St & Yale Ave N	19	0
Stewart St & 9th Ave	55	1
Stewart St & 7th Ave	46	1
Stewart St & 4th Ave	51	4
2nd Ave & Stewart St	23	6
2nd Ave & Seneca St	80	3
2nd Ave & Cherry St	46	2
2nd Ave & Yesler Way	22	6
SR-512 Park-and-Ride	7	152
Lakewood Station	9	108
DuPont Station	0	74
Southbound Total	*357*	*357*
Total	*802*	*802*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

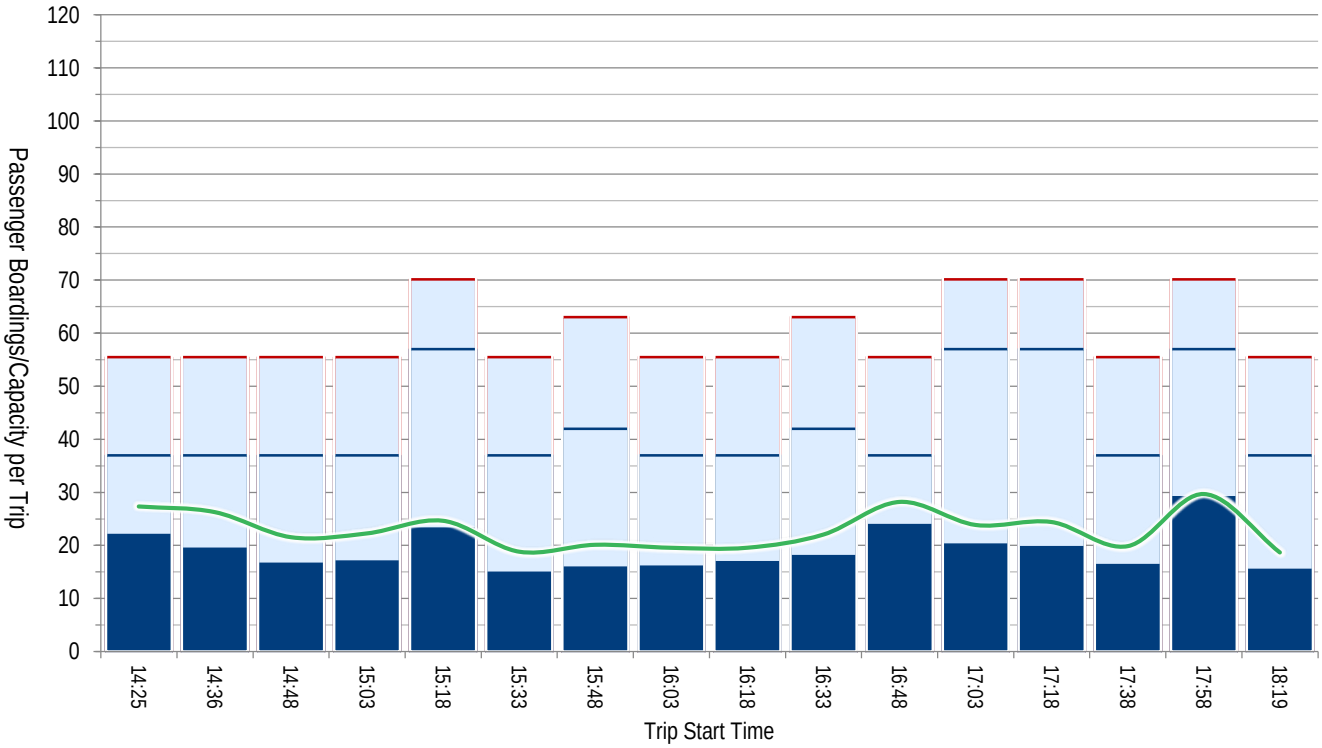


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

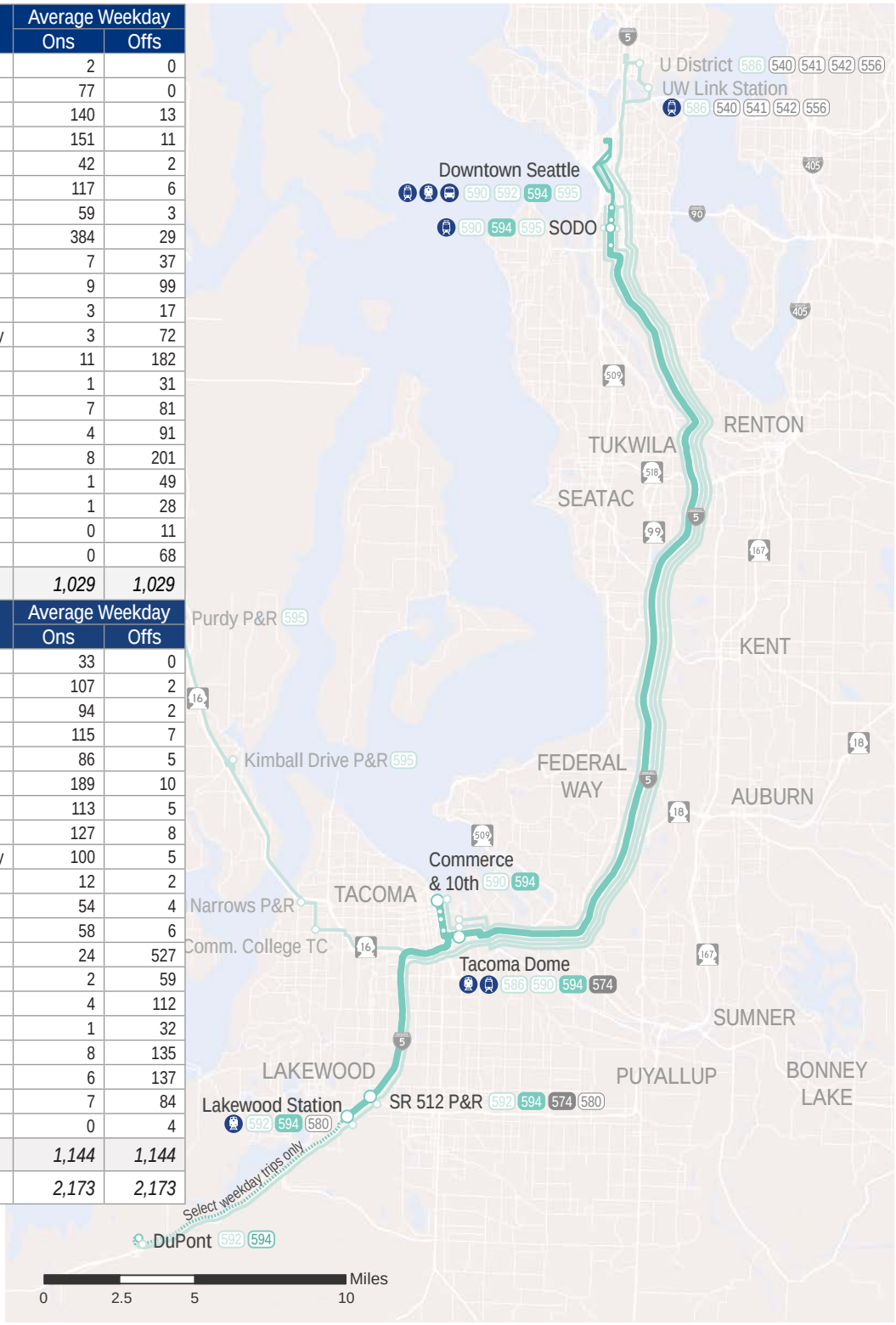
Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



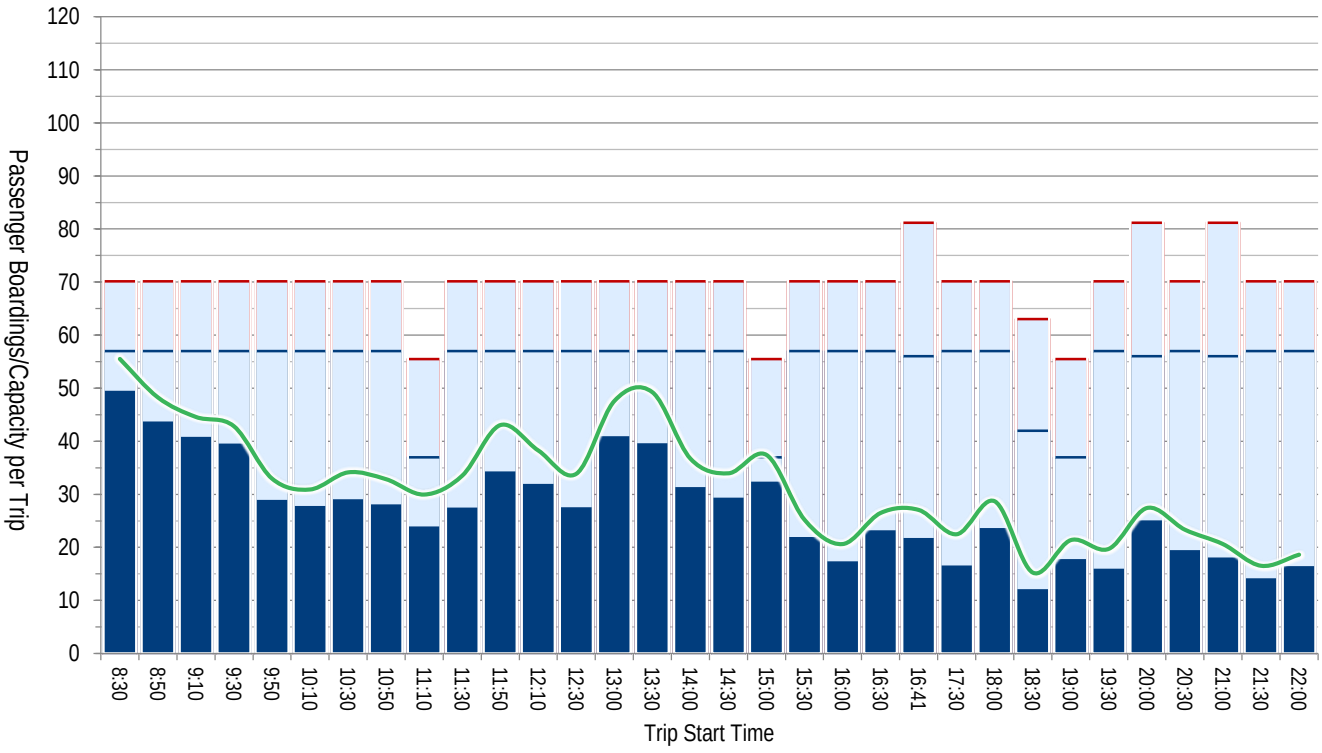
Route 594 Lakewood - Tacoma - Seattle

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	2,157	2,128	2,131	2,173
	Average Saturday Boardings	2,214	2,294	2,319	2,405
	Average Sunday Boardings	1,791	1,791	1,862	1,897
	Annual Boardings	784,995	781,923	771,962	

NORTHBOUND STOPS to SEATTLE	Average Weekday	
	Ons	Offs
DuPont Station	2	0
Lakewood Station	77	0
SR-512 Park-and-Ride	140	13
Commerce St & 10th St	151	11
Pacific Ave & 14th St	42	2
Pacific Ave & 19th St	117	6
24th St & Pacific Ave	59	3
Tacoma Dome Station	384	29
SODO Busway & Spokane St	7	37
SODO Busway & Lander St	9	99
SODO Busway & Holgate St	3	17
SODO Busway & Royal Brougham Way	3	72
4th Ave & S Jackson St	11	182
4th Ave & Washington St	1	31
4th Ave & Cherry St	7	81
4th Ave & Seneca St	4	91
4th Ave & Pike St	8	201
Olive Way & 6th Ave	1	49
Howell St & 9th Ave	1	28
Howell St & Yale Ave	0	11
Eastlake Ave & Stewart St	0	68
Northbound Total	*1,029*	*1,029*
SOUTHBOUND STOPS to TACOMA	Average Weekday	
	Ons	Offs
Stewart St & Yale Ave N	33	0
Stewart St & 9th Ave	107	2
Stewart St & 7th Ave	94	2
Stewart St & 4th Ave	115	7
2nd Ave & Stewart St	86	5
2nd Ave & Seneca St	189	10
2nd Ave & Cherry St	113	5
2nd Ave & Yesler Way	127	8
SODO Busway & Royal Brougham Way	100	5
SODO Busway & Holgate St	12	2
SODO Busway & Lander St	54	4
SODO Busway & Spokane St	58	6
Tacoma Dome Station	24	527
Pacific Ave & 24th St	2	59
Pacific Ave & 19th St	4	112
Pacific Ave & 14th St	1	32
Commerce St & 10th St	8	135
SR-512 Park-and-Ride	6	137
Lakewood Station	7	84
DuPont Station	0	4
Southbound Total	*1,144*	*1,144*
Total	*2,173*	*2,173*



Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

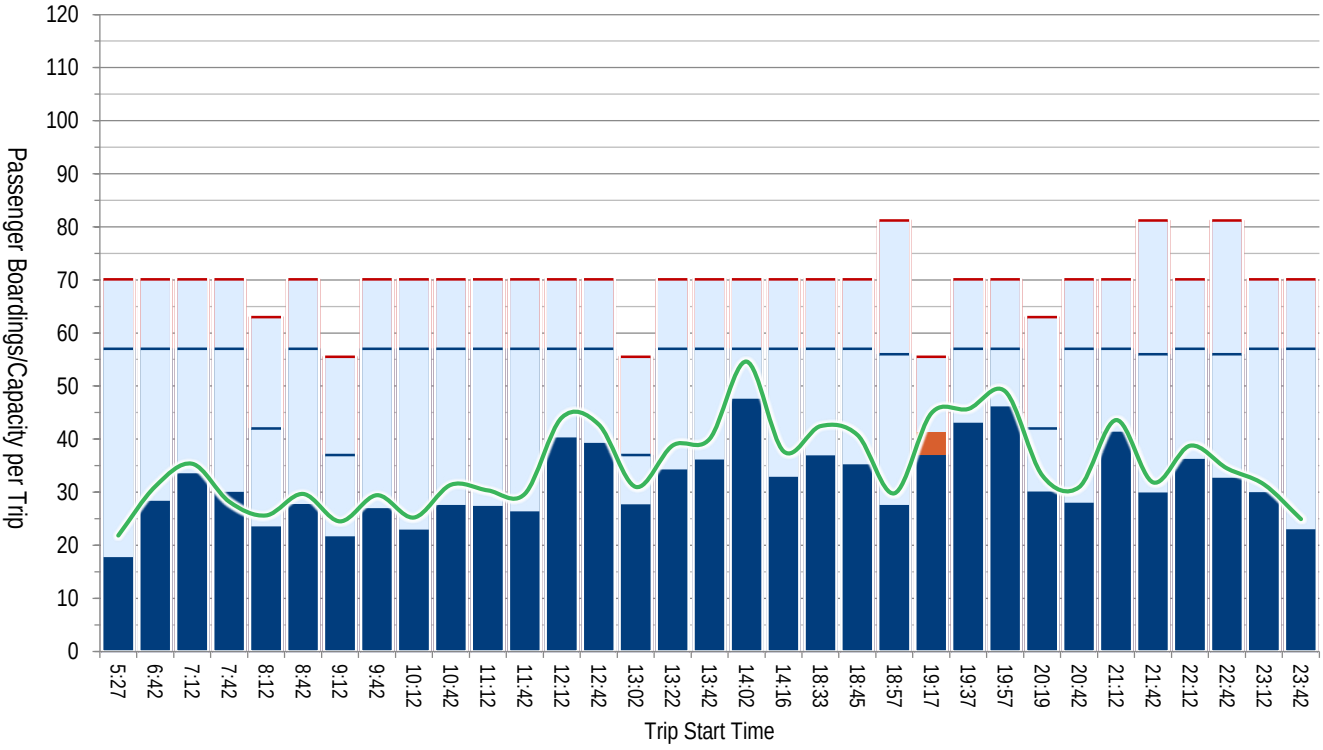


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

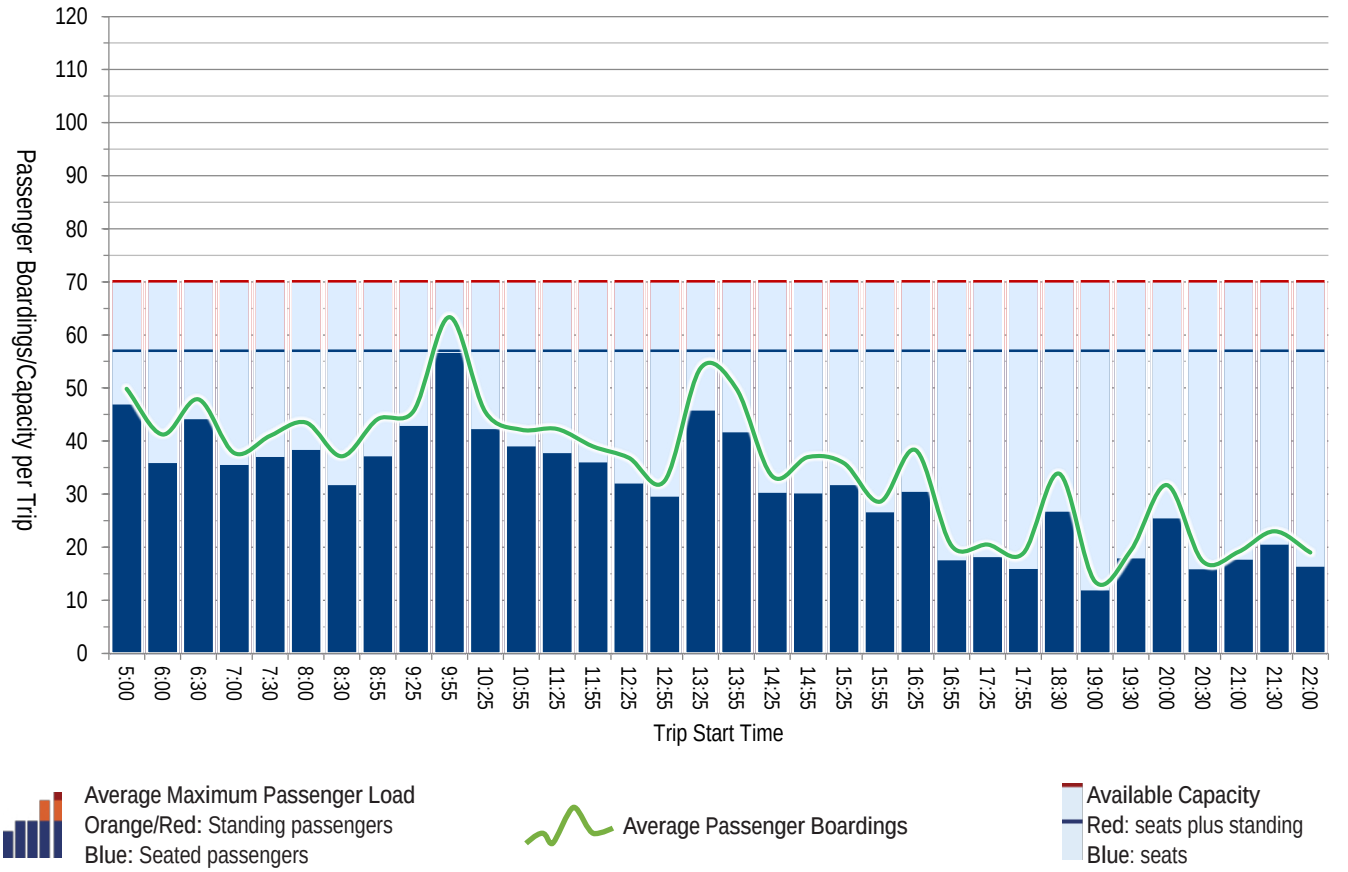
Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

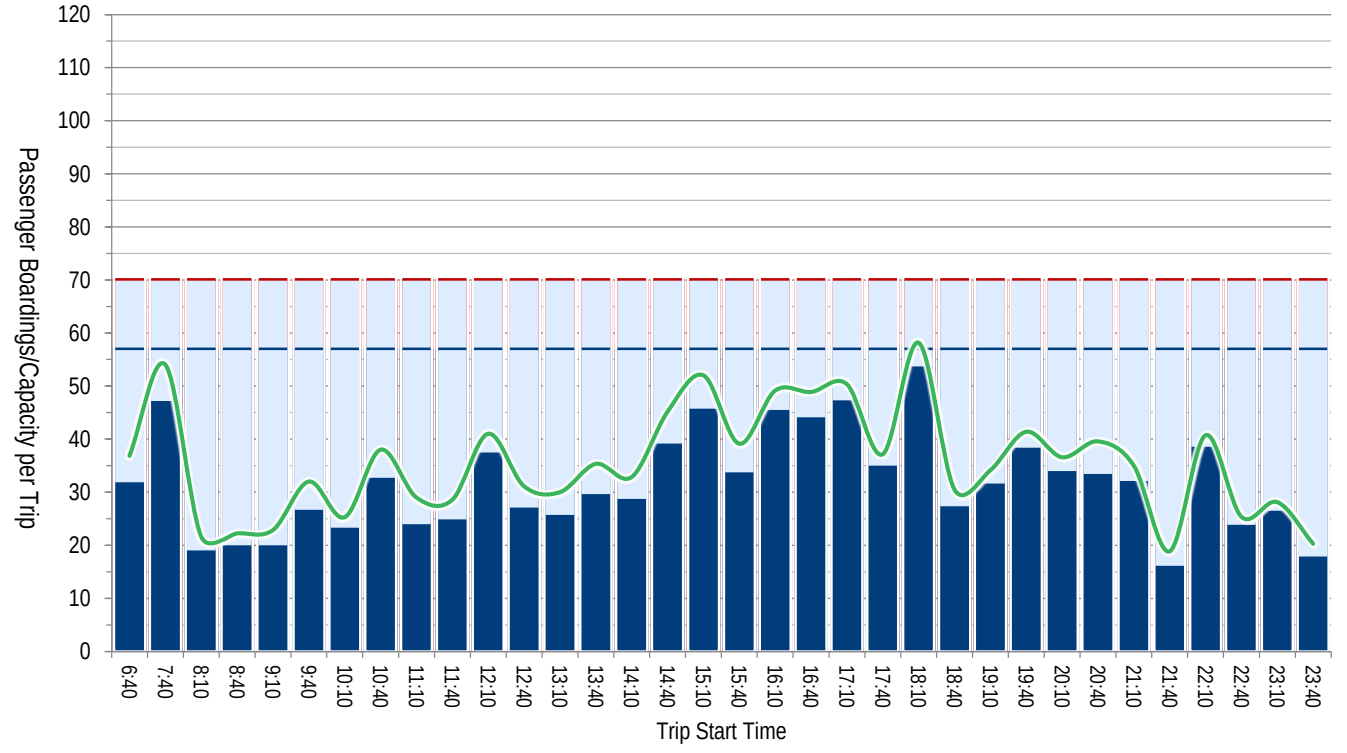
Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



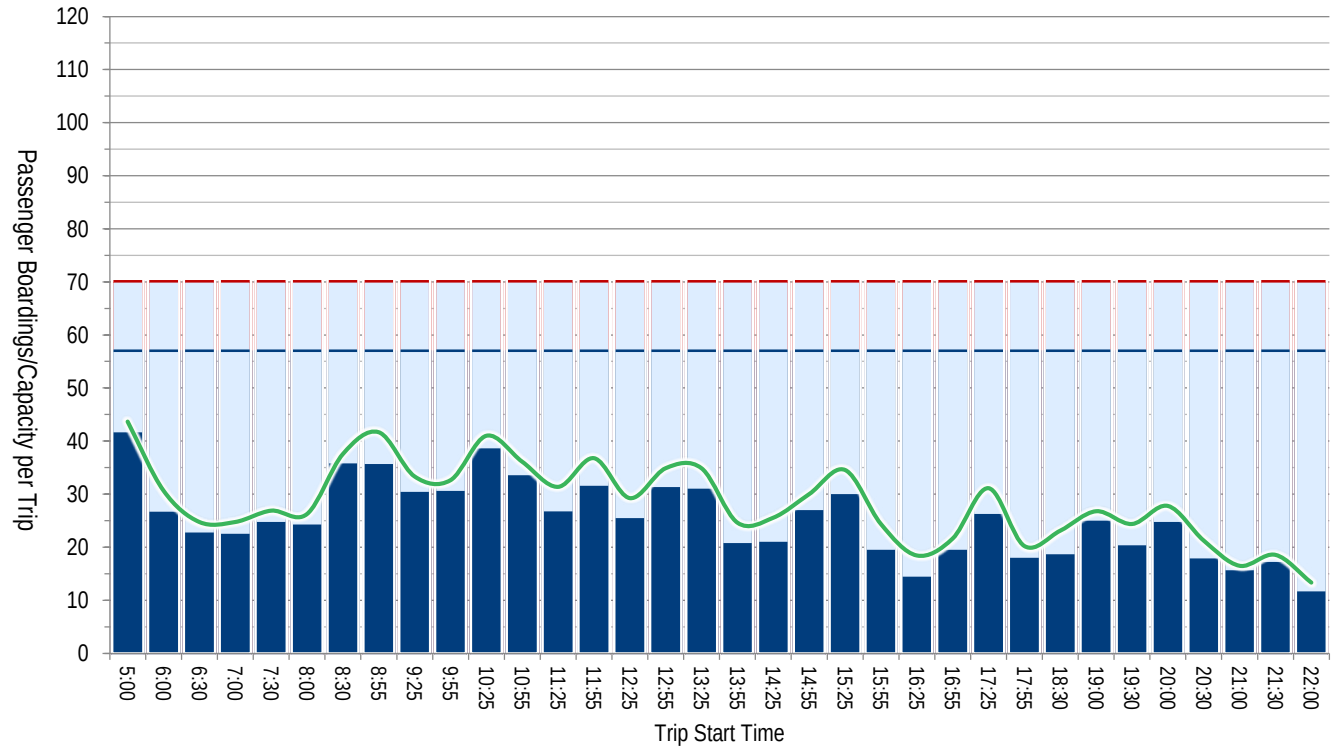
Northbound Average Trip Ridership & Maximum Passenger Loads — Saturday



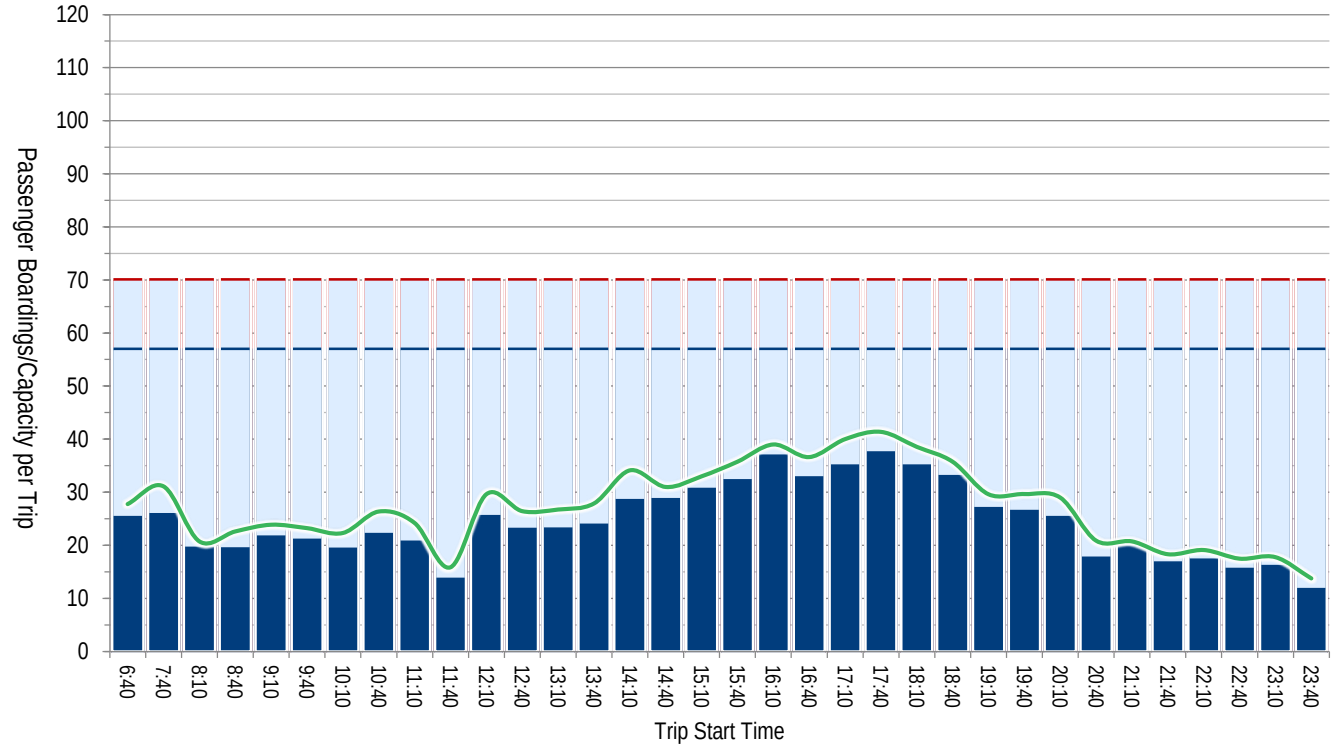
Saturday — Southbound Average Trip Ridership & Maximum Passenger Loads



Northbound Average Trip Ridership & Maximum Passenger Loads — Sunday



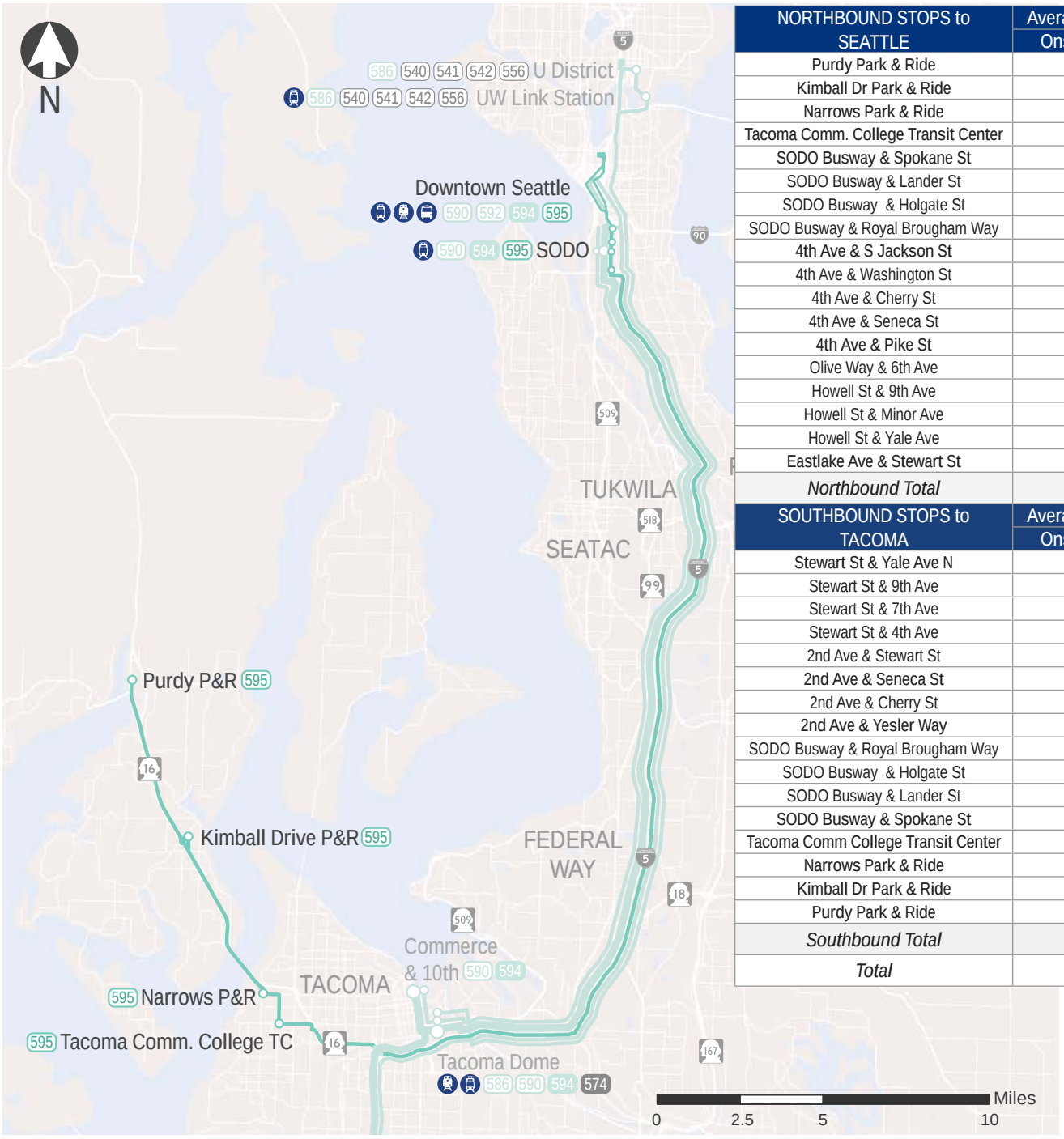
Sunday — Southbound Average Trip Ridership & Maximum Passenger Loads



I-5 South Pierce

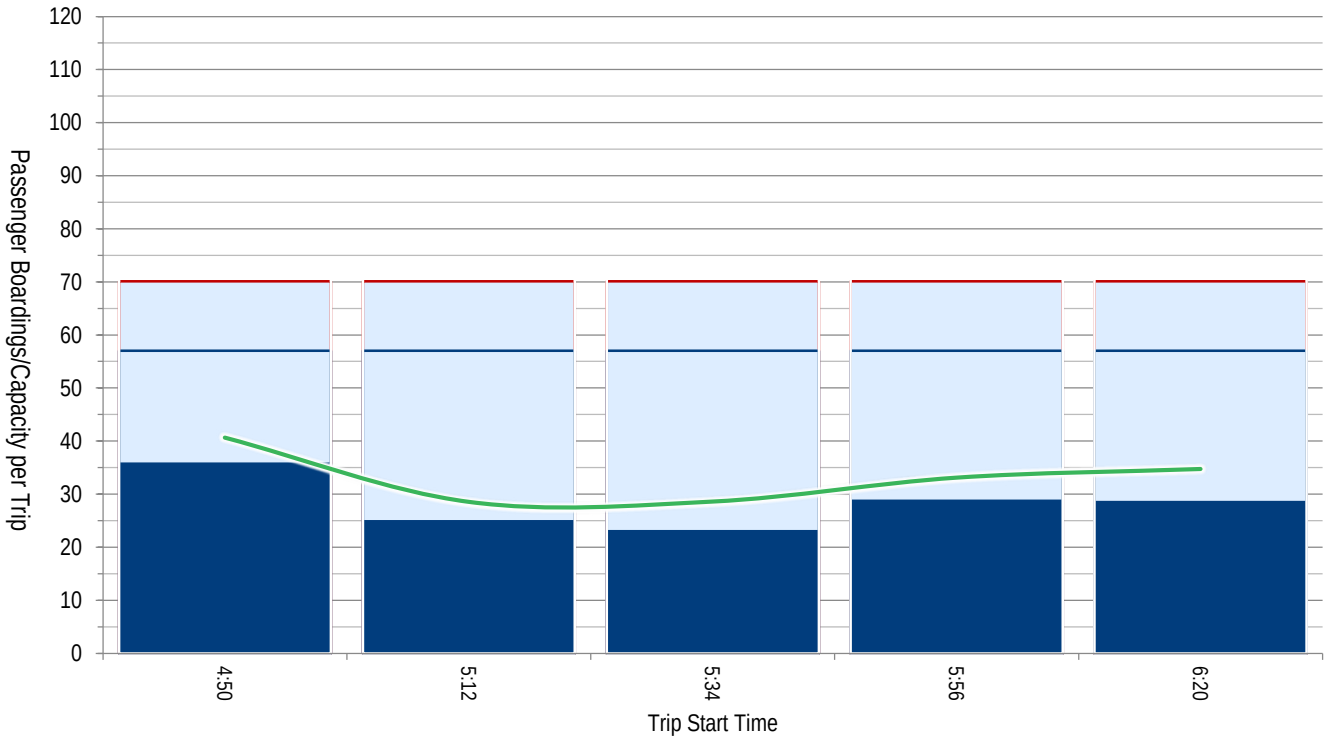
Route 595 Gig Harbor - Seattle

		2016	2017	2018	SPRING 2019
Ridership	Average Weekday Boardings	**346**	**352**	**324**	**313**
	Average Saturday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Average Sunday Boardings	**N/A**	**N/A**	**N/A**	**N/A**
	Annual Boardings	**88,218**	**89,496**	**81,925**	



NORTHBOUND STOPS to SEATTLE	Average Weekday Ons	Average Weekday Offs
Purdy Park & Ride	29	0
Kimball Dr Park & Ride	51	0
Narrows Park & Ride	24	0
Tacoma Comm. College Transit Center	43	3
SODO Busway & Spokane St	2	8
SODO Busway & Lander St	2	7
SODO Busway & Holgate St	1	3
SODO Busway & Royal Brougham Way	0	1
4th Ave & S Jackson St	9	12
4th Ave & Washington St	0	2
4th Ave & Cherry St	0	40
4th Ave & Seneca St	0	26
4th Ave & Pike St	1	21
Olive Way & 6th Ave	1	17
Howell St & 9th Ave	0	8
Howell St & Minor Ave	0	0
Howell St & Yale Ave	0	3
Eastlake Ave & Stewart St	0	12
Northbound Total	*163*	*163*
SOUTHBOUND STOPS to TACOMA	**Average Weekday Ons**	**Average Weekday Offs**
Stewart St & Yale Ave N	11	0
Stewart St & 9th Ave	13	0
Stewart St & 7th Ave	13	0
Stewart St & 4th Ave	15	1
2nd Ave & Stewart St	10	1
2nd Ave & Seneca St	33	1
2nd Ave & Cherry St	20	0
2nd Ave & Yesler Way	10	1
SODO Busway & Royal Brougham Way	2	0
SODO Busway & Holgate St	4	1
SODO Busway & Lander St	6	0
SODO Busway & Spokane St	10	1
Tacoma Comm College Transit Center	2	47
Narrows Park & Ride	0	22
Kimball Dr Park & Ride	0	50
Purdy Park & Ride	0	23
Southbound Total	*150*	*150*
Total	*313*	*313*

Northbound Average Trip Ridership & Maximum Passenger Loads — Weekday

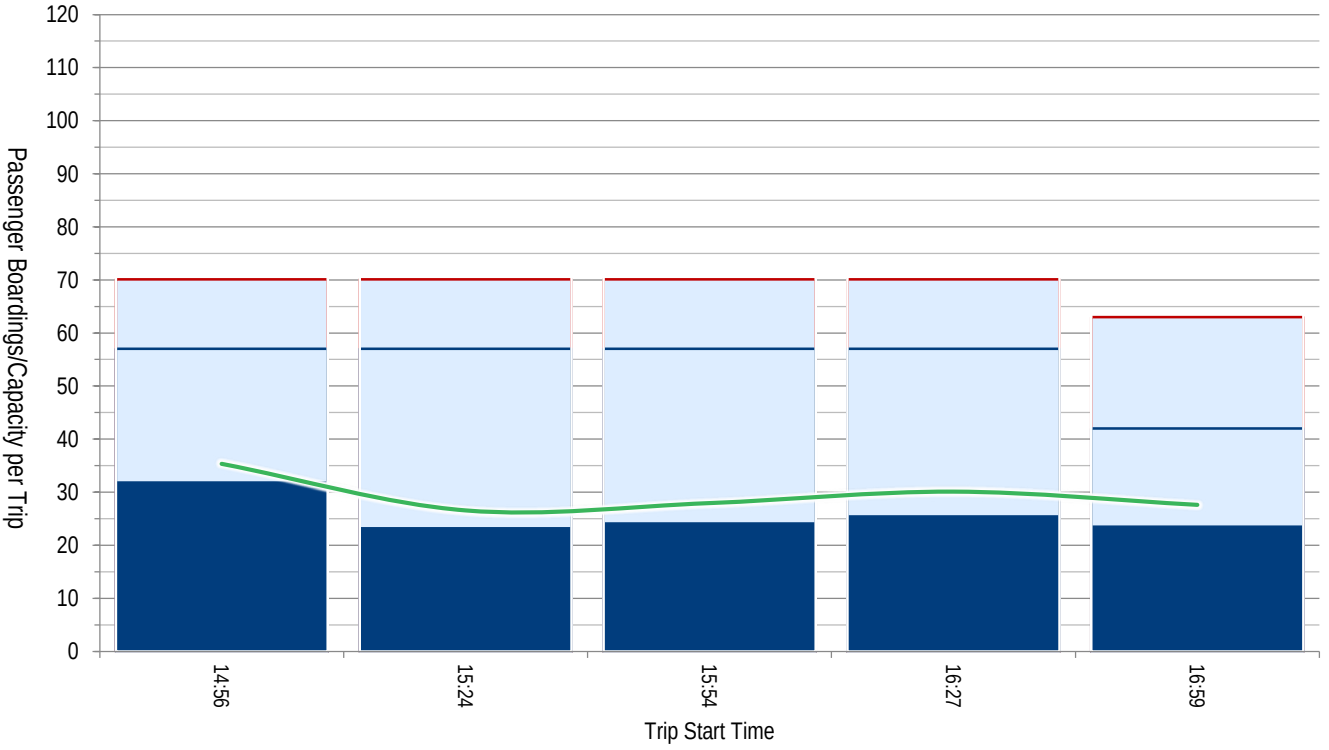


Average Maximum Passenger Load
Orange/Red: Standing passengers
Blue: Seated passengers

Average Passenger Boardings

Available Capacity
Red: seats plus standing
Blue: seats

Weekday — Southbound Average Trip Ridership & Maximum Passenger Loads



APPENDIX A

Title VI Maps by Service Change

Title VI Maps by Service Change

ROUTE 544 - NORTHEAST MOBILITY PLAN

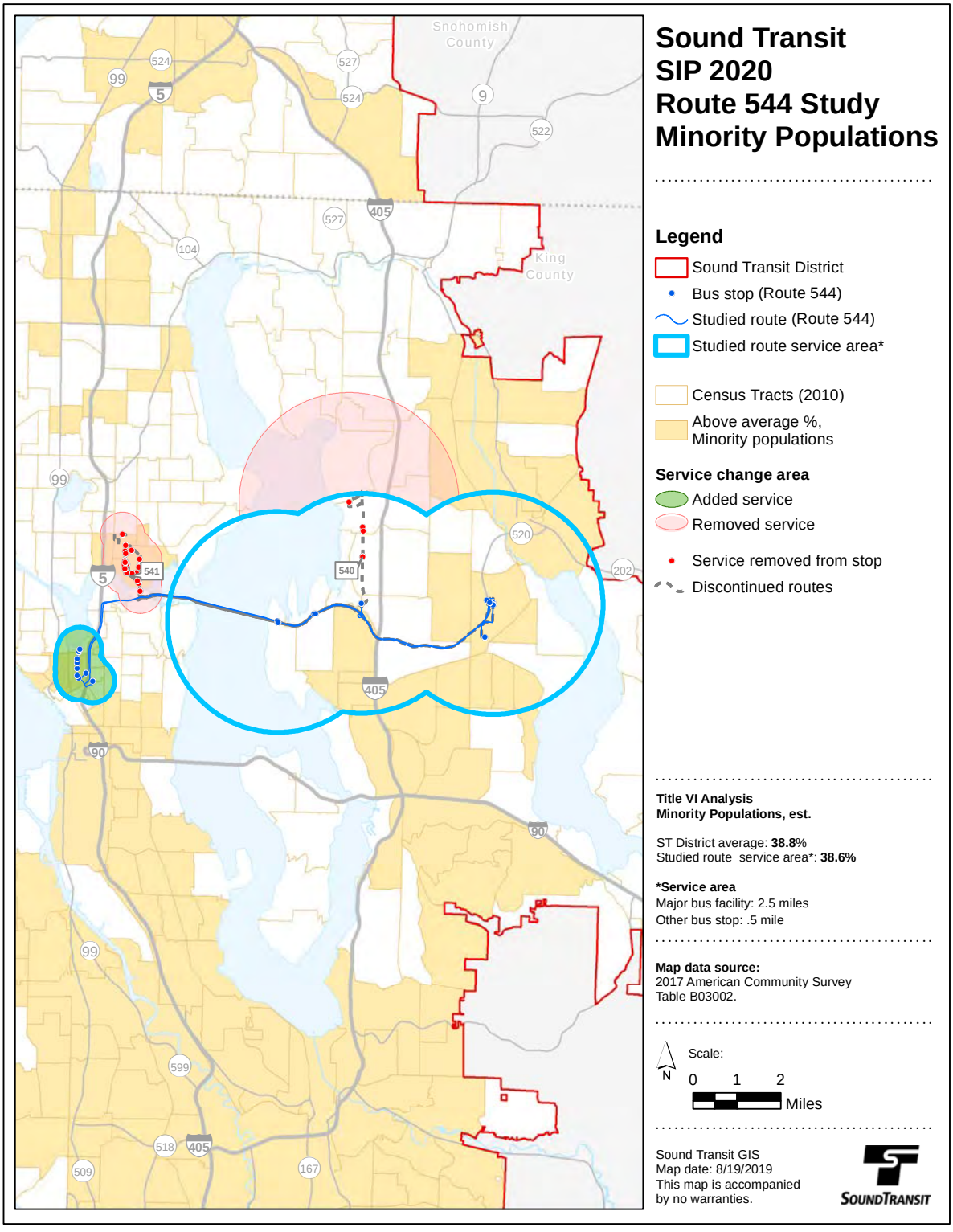


Figure 37: Minority Population Affected by North Eastside Mobility Plan Changes

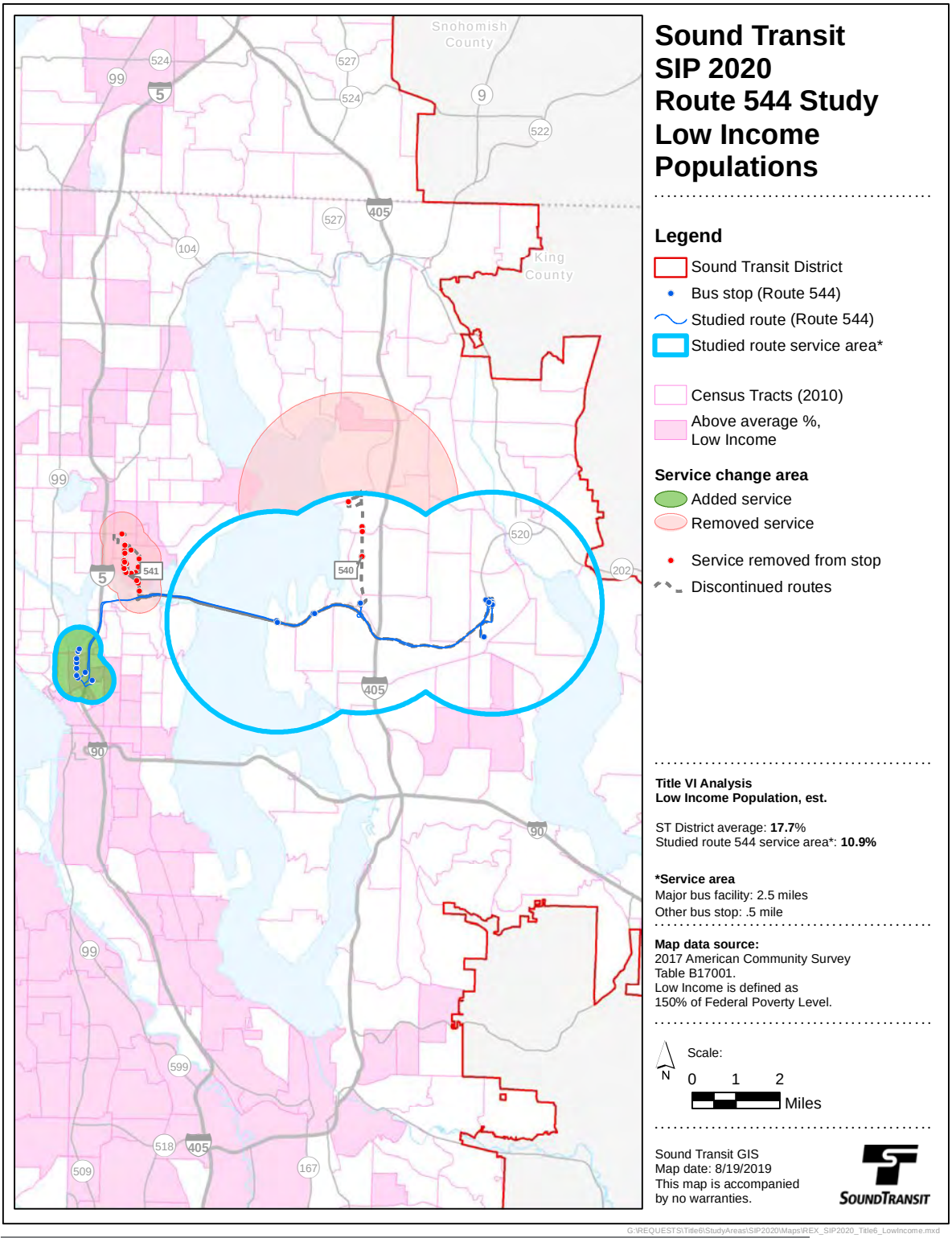


Figure 38: Low Income Population Affected by North Eastside Mobility Plan Changes

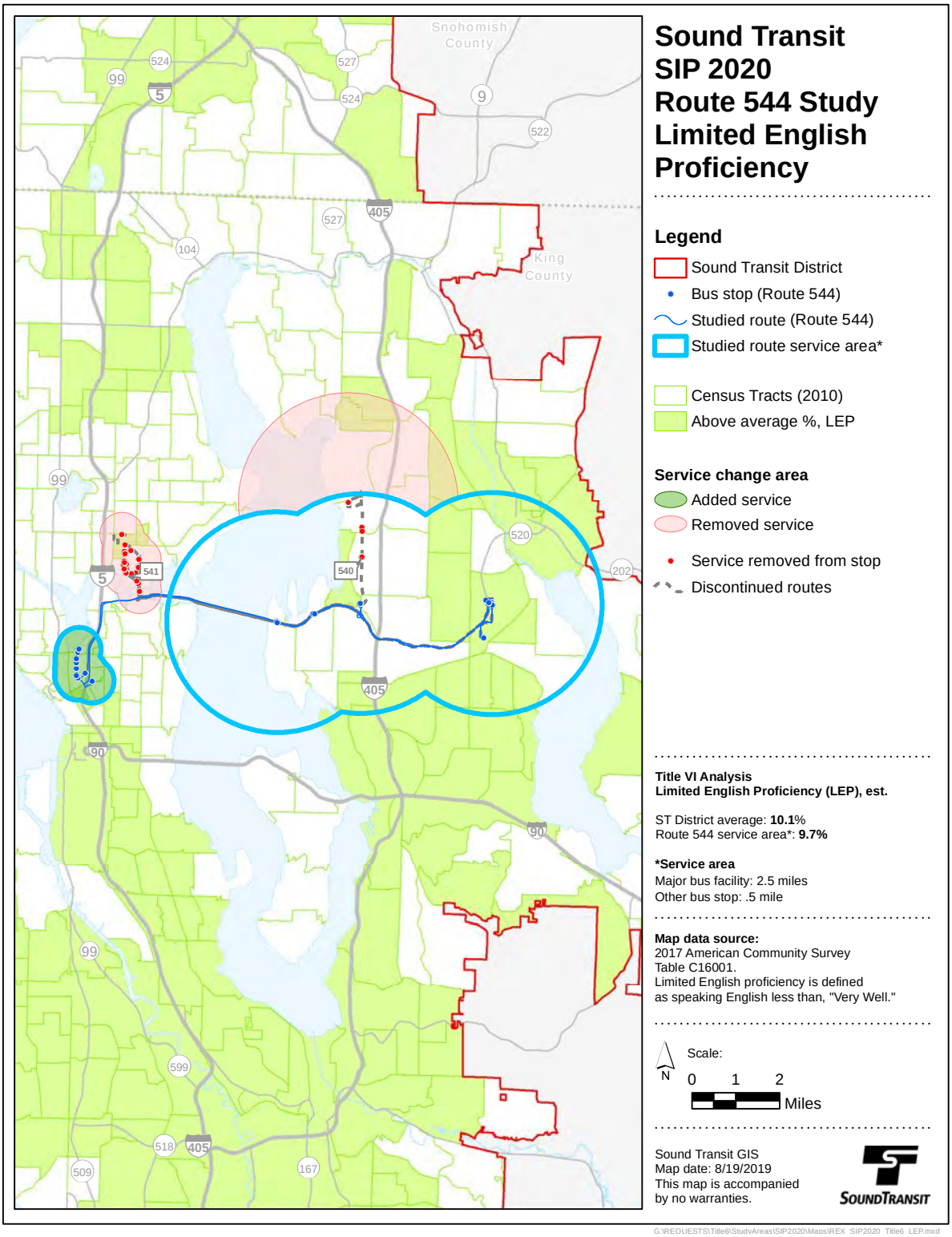


Figure 39: Limited English Proficiency Population Affected by North Eastside Mobility Plan Changes

ROUTE 566 - STOP DISCONTINUATION

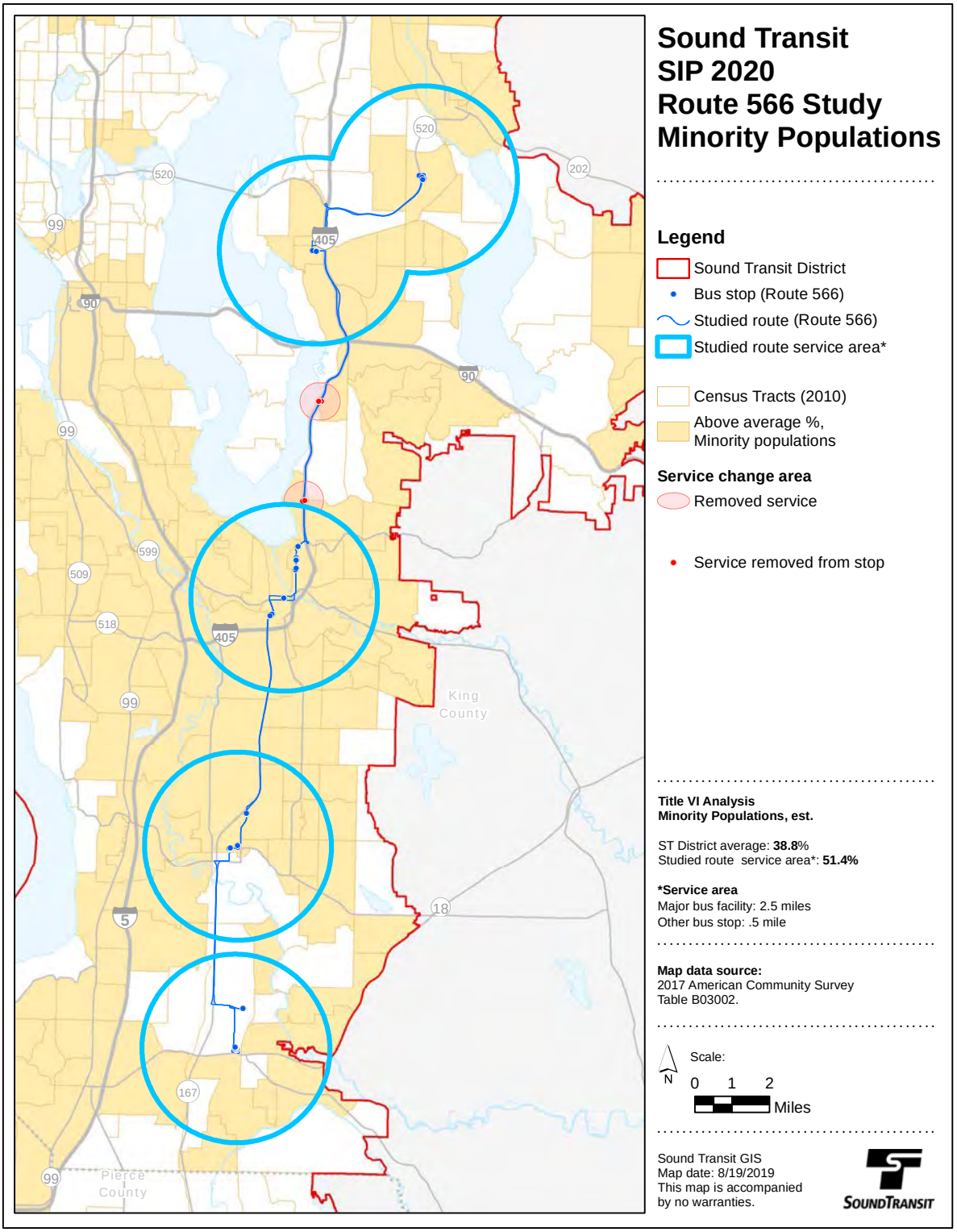


Figure 40: Minority Population Affected by Route 566 Stop Discontinuation

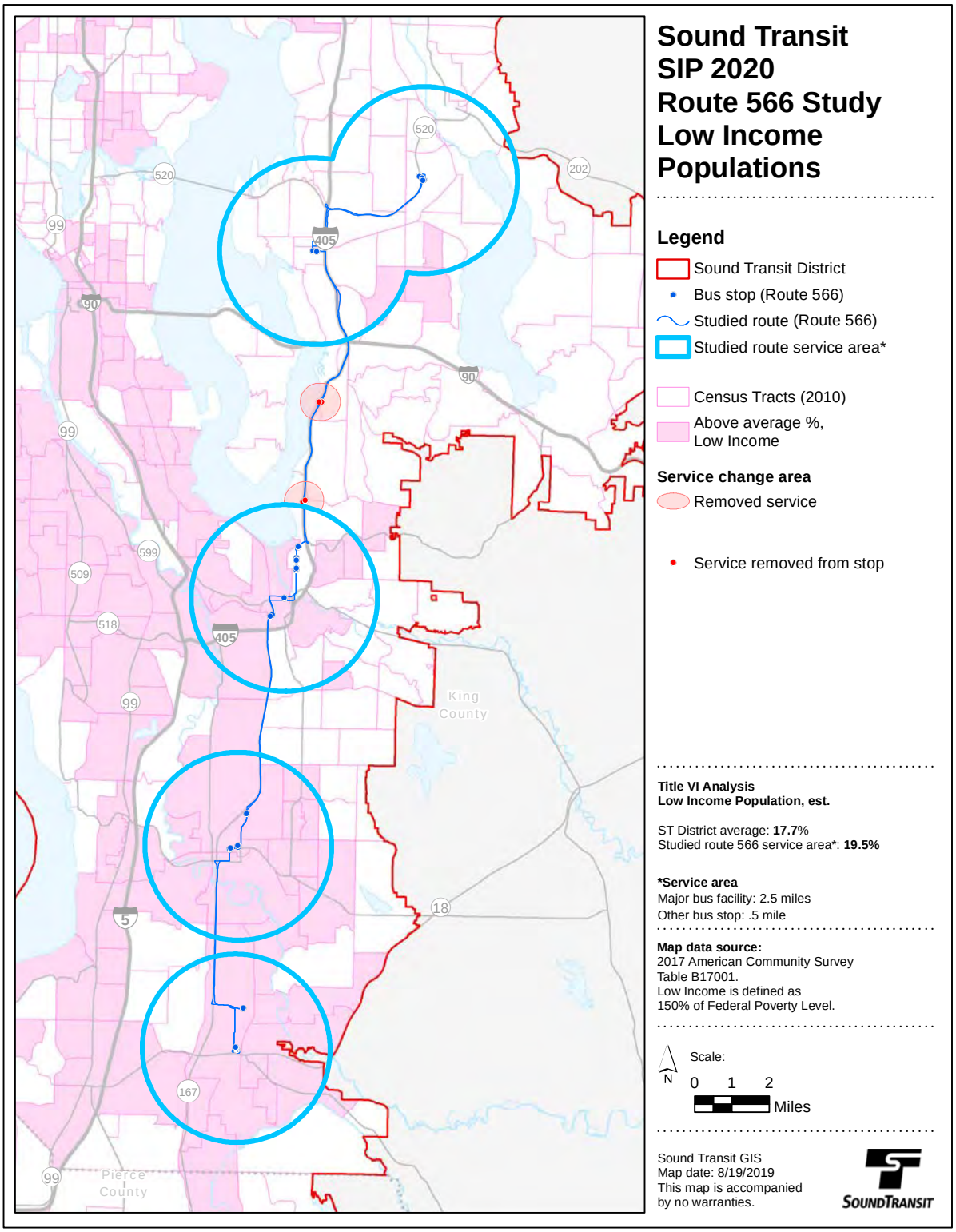


Figure 41: Low Income Population Affected by Route 566 Stop Discontinuation

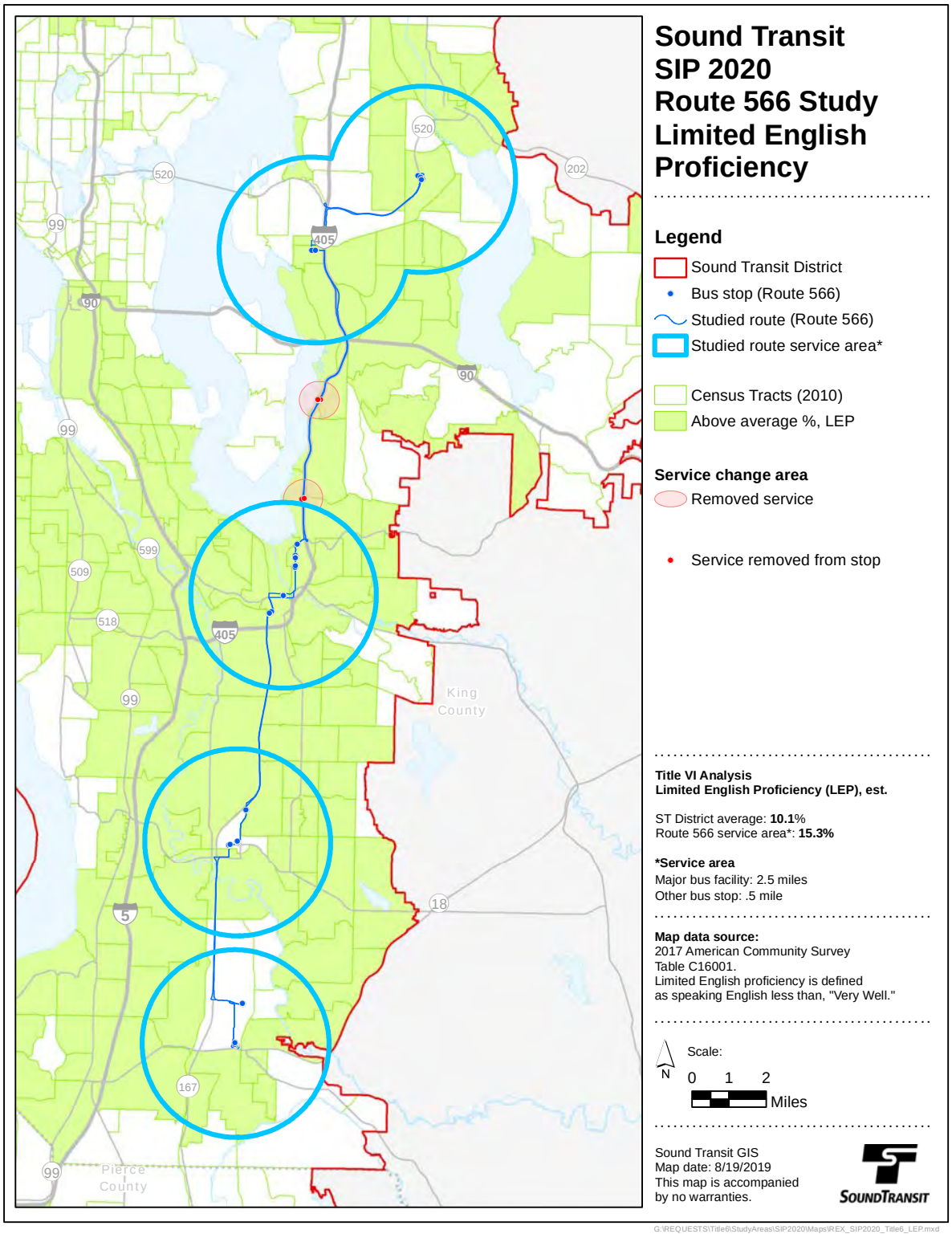


Figure 42: Limited English Proficiency Population Affected by Route 566 Stop Discontinuation

ROUTE 577 WEEKEND CONVERSION TO SHORT 578 TRIPS

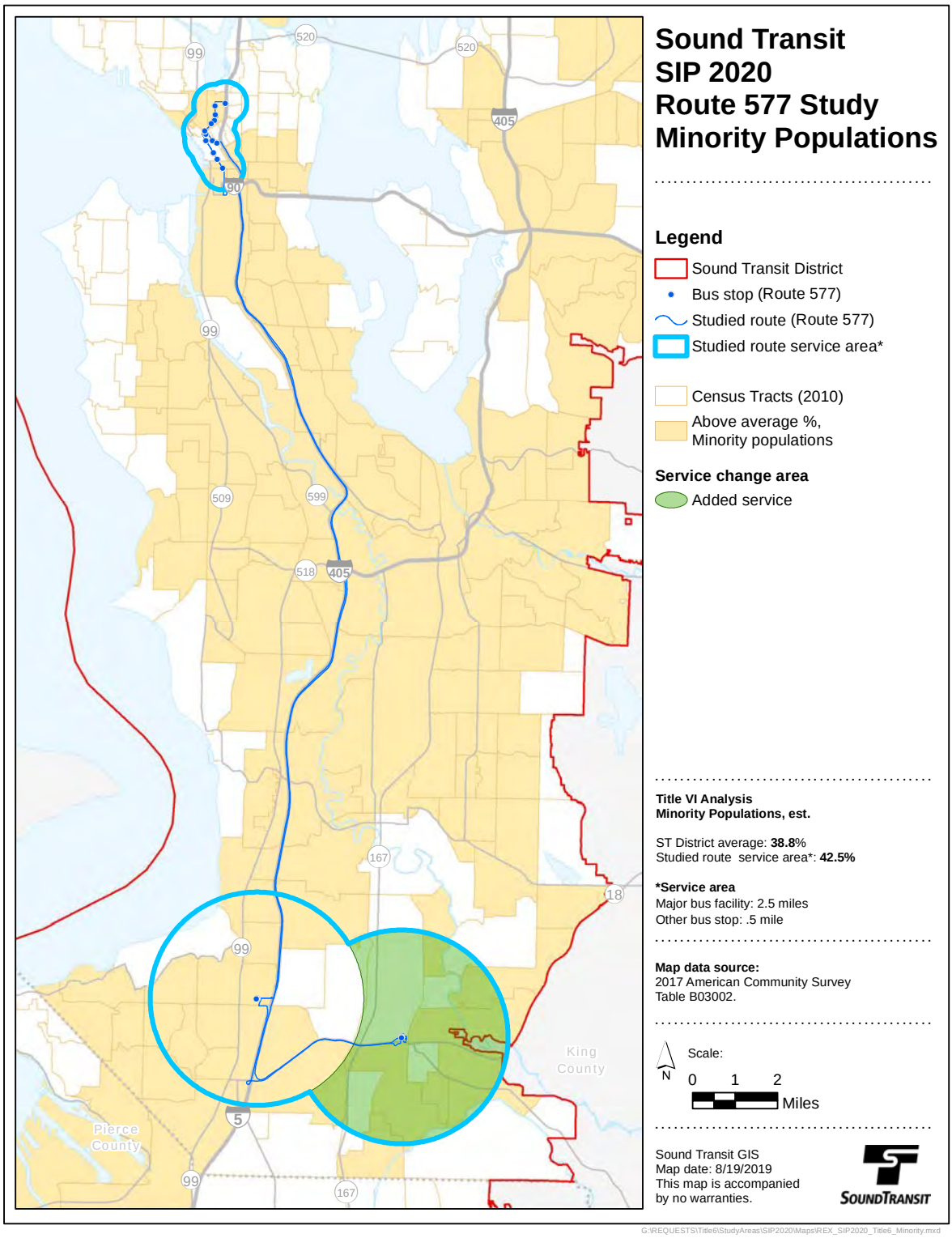


Figure 43: Minority Population Affected by Route 577/578 Weekend Changes

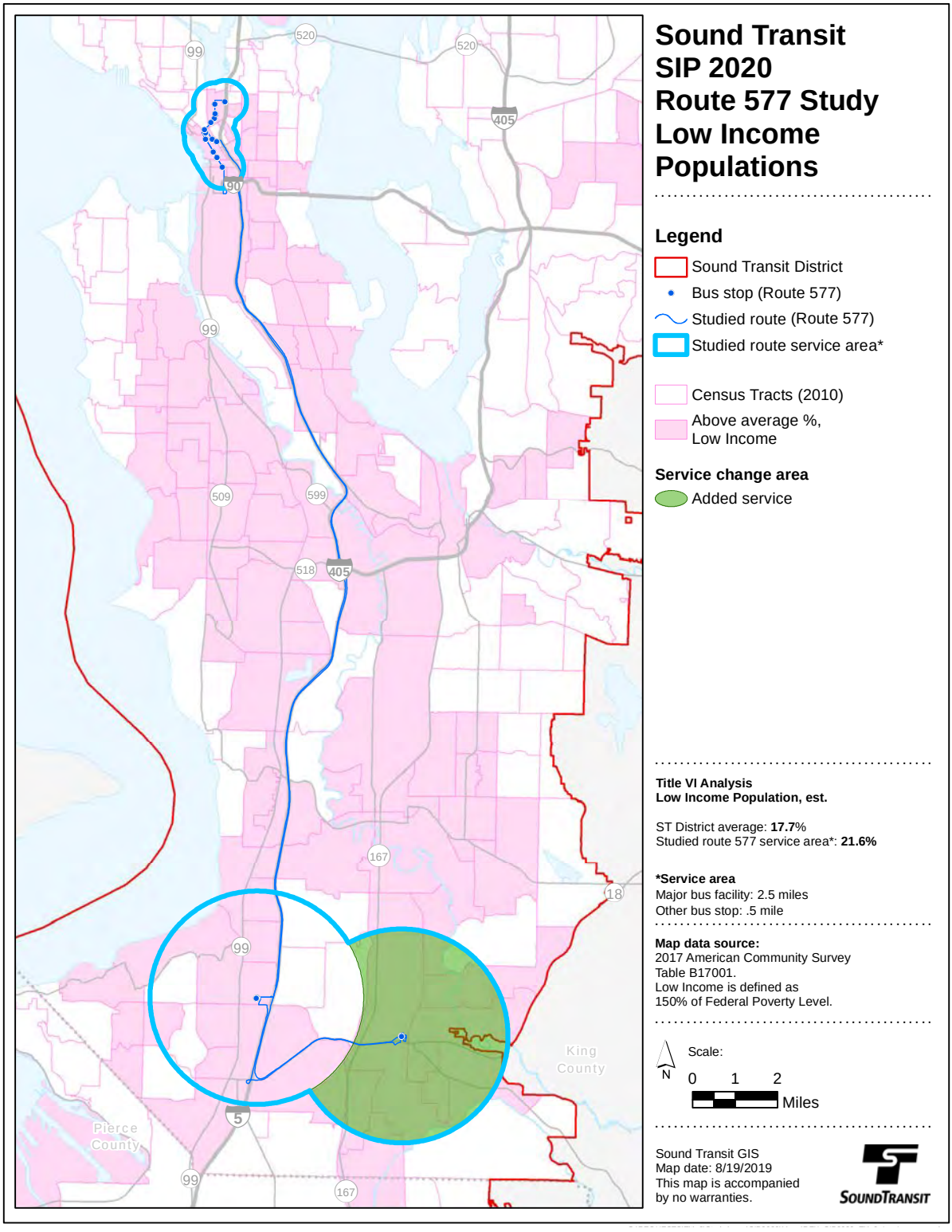


Figure 44: Low Income Population Affected by Route 577/578 Weekend Changes

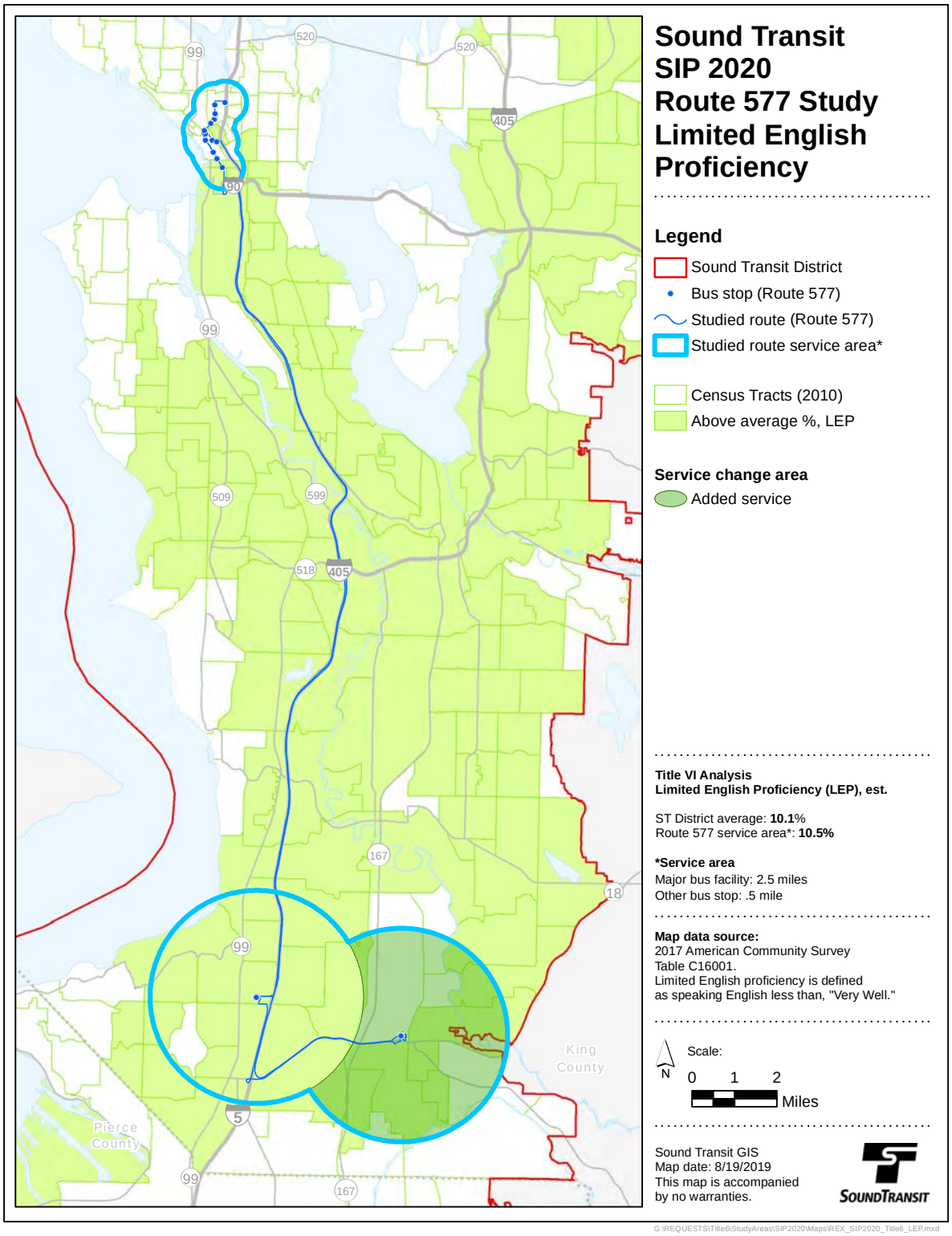


Figure 45: Limited English Proficiency Population Affected by Route 577/578 Weekend Changes

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APPENDIX B

Public Outreach - What We Heard

Summary of Outreach Events

Outreach for the 2020 SIP was conducted both in person and via online channels. Public Comment was available between September 7 and October 7, which allowed staff to summarize feedback and respond with revised proposals if necessary.

IN PERSON OUTREACH

Sound Transit staff were out in the field discussing proposed changes at the following locations:

Pop-up Sessions	People Engaged
S Kirkland Park-and-Ride Tue 9/24 6:30-9:30am	154
SR 520 / NE 40th St Freeway Stops Wed 10/2 3:30-7:00pm	209
South Lake Union Farmers Market Thu 10/3 10:00am - 2:00pm	150
Street Teams at Bus Stops	**People Engaged**
Overlake Village Park-and-Ride Tue 9/17 3:30-7:00pm	38
Overlake Transit Center, Bay 8 Thu 9/19 6:30-9:30am	5
UW Station Bay 1 Mon 9/30 3:00-6:30pm	154

Table 21: Summary of Outreach Event locations

In addition to the public outreach events, Sound Transit spoke to Microsoft employees to discuss how these changes around Overlake would impact their commutes. Across all outreach events, staff engaged with over 700 customers to solicit feedback on the proposals.

ONLINE OUTREACH

Additionally, customers were invited to provide comments online through the survey form found at soundtransit.org/SIP or emails to servicechanges@soundtransit.org. Advertisements on Facebook and Twitter as well as emails from Sound Transit to people signed up to recieve planning updates also solicited feedback from customers by directing them either to an in person event or to the online survey. Nearly 10,000 people received communications from Sound Transit regarding the proposals for this year's Service Plan. We also received 377 survey responses, which alongside the in-person outreach were used to help refine proposals along the SR-520 corridor.



Attention
ST Express riders

ST is proposing to convert Route 540 & 541 resources into new Route 544

Metro is revising Route 255 to service the University of Washington (UW) Station in March 2020, serving the same stops as current Route 540. New Route 544 would use current resources spent on Routes 540 and 541 to connect the Eastside to South Lake Union. Route 544 would run during peak hours in both directions, serving Overlake Village, Overlake Transit Center, South Kirkland, SR 520 and South Lake Union. Though most passengers would still have a one-seat ride, passengers traveling between Overlake Village and UW would transfer to either Route 542 at Overlake Transit Center's freeway station or to Route 255 at Evergreen Point freeway station.

2020 Service Plan

Every September Sound Transit releases a draft service plan for the following year. The service changes proposed above are part of the 2020 Service Plan.

Let us know what you think by Oct. 7, 2019
See other side for feedback opportunities →

For more information

Visit soundtransit.org/sip
Email us at ***servicechanges@soundtransit.org***
Call us 1-866-940-4387
Sign up for rider alerts at soundtransit.org/subscribe

Sound Transit has accessible formats for materials available and can make accommodations for public meetings, call 1-800-201-4900 or email ***accessibility@soundtransit.org***.

SOUNDTRANSIT

Feedback opportunities

Pop-up events
Join us to learn more about the service plan process and proposed changes.

South Kirkland Park & Ride
Tuesday, Sept. 24 // 6:30 - 9:30 a.m.

SR 520 at NE 40th St. freeway stops
Wednesday, Oct. 2 // 3:30 – 7 p.m.

South Lake Union Farmers Market
(410 Terry Ave. N., Seattle)
Thursday, Oct. 3 // 10 a.m. – 2 p.m.

Public hearing
Thursday, Oct. 3 // 12:30 p.m.
Union Station, Ruth Fisher Board Room
401 S. Jackson St., Seattle

Online survey
Participate in our online survey at ***soundtransit.org/sip***

Title VI: Notice to the Public Non-discrimination Policy
We are committed to fair and equal treatment for everyone who rides our buses and trains. Under Title VI of the United States Federal Civil Rights Act of 1964, our riders will not face discrimination due to race, color or national origin as a result of any ST program or activity. If you believe you have been discriminated against, you can file a discrimination complaint with Sound Transit or the Federal Transit Administration (888-446-4511). You must file the complaint with ST in writing within 180 days of the claimed discriminatory act. Sound Transit Title VI complaint forms are available by calling 206-298-5000 or can be downloaded by visiting soundtransit.org/titleVI.

To learn more about possible Sound Transit service changes or the Title VI Non-discrimination policy, please call 1-800-823-9230 during normal business hours.

Để tìm hiểu thêm về các thay đổi có thể có đối với dịch vụ Sound Transit hoặc chính sách Chống phân biệt đối xử Tựa đề VI bằng TIẾNG VIỆT, vui lòng gọi 1-800-823-9230 trong giờ làm việc bình thường.

Sound Transit 서비스 변경 사항 또는 제6조 차별금지 정책을 한국어로 알아보시려면 일반 업무 시간에 1-800-823-9230로 전화하십시오.

За дополнительной информацией о возможных изменениях маршрутов Sound Transit или политике недопущения дискриминации согласно Разделу VI на РУССКОМ ЯЗЫКЕ обращайтесь по телефону 1-800-823-9230 в обычные рабочие часы.

Para obtener más información acerca de los posibles cambios en el servicio de Sound Transit o acerca de la política de no discriminación del Título VI en ESPAÑOL, llame al 1-800-823-9230 durante el horario de oficina regular.

Para matutunan ang marami pa tungkol sa posibleng mga pagbabago sa serbisyo ng Sound Transit o ang Titulo VI ng pakataran ng Walang Deskriminasyon sa TAGALOG, pakitawagan ang 1-800-823-9230 tuwing normal na oras ng pagnenegosyo.

如欲瞭解更多有關 Sound Transit 可能實行之服務變更或非歧視政策第六條的資訊繁體中文，請於正常工作時間內致電 1-800-823-9230。

Pop-up Sessions

Below are general themes heard during this phase of outreach.

South Kirkland Park & Ride

- Riders expressed concern about bus service from the Eastside being rerouted to a UW terminus instead of a downtown Seattle terminus.
- Reactions to the King County Metro Route 255 and Sound Transit Route 544 were mixed—some people were upset with the change, while others were glad ST was thinking about duplicate service.
- Of those who were upset about the change, their primary points of contention were changing buses at the Evergreen Point stop and the paid parking at the S Kirkland P&R.
- A handful of riders spoke negatively about their past light rail experiences, while others were looking forward to Eastside light rail service.
- Most questions were related to routes (e.g., how to get from Kirkland to X).
- Many riders thanked staffers for information and were generally glad ST was visible and present to share information.

Overlake SR 520 & NE 40th St Freeway Stops

- Riders observed that people traveling further east would experience no change to their route with the proposed Route 544, but a few riders inquired about whether the Route 542 would stop running on weekends with the proposed SIP changes.
- Several riders shared that the Montlake Freeway Stop removal highly impacted their travel on many different bus routes.
- A handful of riders shared that there is significant traffic through the South Lake Union (SLU) area, so they opt to walk to the bus stop at Denny St and Stewart St, which is faster than traveling on the bus as it waits in SLU traffic.
- Many riders expressed support for the proposed changes.



South Lake Union Farmers Market

- Attendees were largely unaware of the new Route 544.
- Even people that won't use the route (because of where they live/work), were really excited about that opportunity for others.
- There were some Route 545 riders that were concerned that changes would be made to that route, but thought it was cool that they'd be able to take the 544 instead.
- Many riders wanted to understand why the proposed Route 544 wouldn't go all the way to Redmond.
- One rider wondered if a bus line could be added to Redmond Way to connect to light rail once it opens in the Marymoor area in 2024.

Street teams

Overlake Village Park & Ride

- A few riders shared that the 541 is regularly late and hoped the proposed changes would improve on-time arrivals.
- Riders were interested in understanding whether the proposed Route 544 would have the same schedule as Routes 541 and 540.
- One rider expressed that they weren't interested in the proposal if it means fewer options for getting to and from the University of Washington.

Overlake Transit Center

- Most riders were not interested in dialoguing with staff, but those that did shared that they were aware of the changes.
- Staff noticed that the majority of riders had Microsoft badges, and hypothesized that Sound Transit's other outreach with Microsoft was effective in communicating the proposed changes.

University of Washington Bay 1 (NE Pacific Pl)

- Riders shared that there is existing high ridership on Route 542 and expressed concern about more people choosing this route if proposed changes take effect.
- A few riders were glad to learn the proposed King County Metro Route 255 would stop at Evergreen Point Road.
- Many riders expressed concern about the King County Metro Route 255 already being over-crowded and wondered if the new Route 544 and Route 255 would come frequently enough to meet the ridership demand.
- One rider reported frustration about paying twice when transferring between Sound Transit and King County Metro buses without an ORCA card.
- Riders wondered why the OneBusAway app does not show the arrival time for Route 540 and 541 buses and hoped Sound Transit could follow up.



Survey Results

A total of 377 surveys were completed for this year's Service Plan. Below

DEMOGRAPHICS

By Gender

Gender	Count (%)	
Female	165	45.6%
Male	161	48.1%
Non-binary	3	0.8%
Self-describe	2	0.6%
Decline to State	18	5.0%

By Personal Identity & Characteristics

Ethnicity	Count (%)	
American Indian or Alaskan Native	5	2.1%
Asian	57	16.9%
Black or African Ame rican	11	3.3%
Caucasian/White	242	71.6%
Native Hawaiian or other Pacific Islander	7	2.1%
Two or more	29	8.6%
Other	13	3.8%

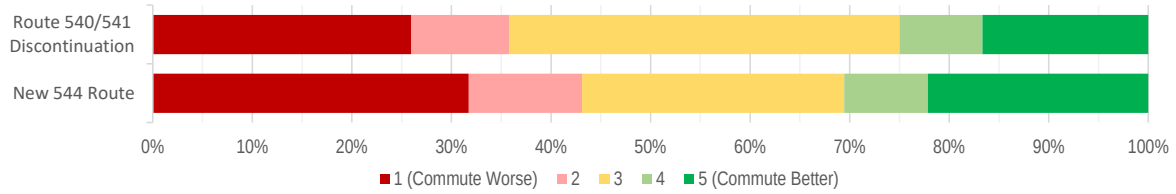
Household SIze	Count (%)	
1 (Live Alone)	64	18.6%
2	138	40.1%
3	55	16.0%
4	54	15.7%
5	20	5.8%
6 or more	13	3.8%

By Location

City	Count (%)	
Auburn	8	2.1%
Bellevue	20	5.1%
Bonney Lake	4	1.0%
Bothell	4	1.0%
Everett	2	0.5%
Federal Way	23	5.9%
Kent	8	2.1%
Kirkland	22	5.7%
Maple Valley	2	0.5%
Puyallup	7	1.8%
Redmond	65	16.7%
Renton	5	1.3%
Sammamish	6	1.5%
Seattle	156	40.1%
Spanaway	2	0.5%
Tacoma	9	2.3%
Other	46	11.8%

North Eastside Mobility Plan (SR 520)

Sound Transit had proposed discontinuing Routes 540 and 541, which serve the University of Washington Campus from Kirkland and Overlake, respectively, to introduce a new Route 544 serving South Lake Union. Respondents were asked to provide feedback on this proposal in relation to the North Eastside Mobility Plan. Most customers fell into two camps: those that were concerned about loss of capacity to/from UW and those who were in support of the new SLU service.



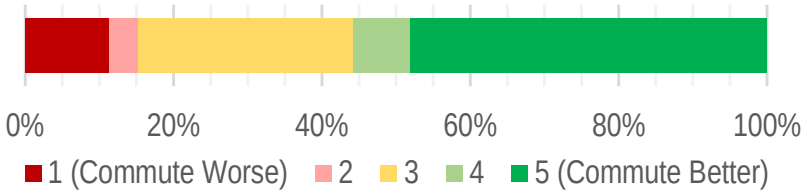
Additional Comments

After answering the survey respondents were asked if they had any additional comments. The following table presents the major themes and examples of response received within each theme from this open-ended section of the survey. In total, **188 respondents provided an additional comment** on the Sound Transit changes along SR-520.

TOPIC	SAMPLE RESPONSES
In support of service to SLU	■ I think it is great for people living in SLU, especially given the lack of connector service and transit options to that area. ■ Overlake-SLU is a much-needed connection. It's not my regular commute but making it more convenient for others has great potential. ■ This seems like it will be super beneficial for people, like me, who ride the 545 in the evening and go to Redmond TC. Most people get off on the highway stops that the 544 will service. This route also helps me in the morning, since the 255 will no longer be going to SLU. Hopefully the dropoff for the 544 isn't too far away from where the 545/255 drops off.
Related to reduced service to UW	■ Worst change ever to me. 541 like it was is the perfect option to me living in Bellevue to get to UW every day. I even would appreciate having more busses available on this route. But changing it the way you are planning makes my workday much more stressful. I would appreciate, if you could reconsider to keep the 541 route like it is! Thank you! ■ I live in Wallingford. I have about a 15 minute walk to 15th Ave NE and Campus Park Way and commute to the South Kirkland Park and Ride. The 540 is fantastic and perfect for my commute. The proposed 544 does not help me as it does not stop near UW, nor does an expanded 255, as UW station would make my morning walk too far. I would have to take the 541 then 255/540 along 520 or a bus to UW station another to the South Kirkland P&R. Either way adding a leg or two to my trip. ■ With the current closure of the Montlake freeway stop this will remove two of the 3 routes used can be used to get from montelake to evergreen point, and further overcrowd the already over crowded route 542 and there will be no other option to get to evergreen point or the Overlake transit center. ■ The removal of the 520 bus station under Montlake already made my commute worse, now I have half as many options to get to work. By removing the 541, you are reducing my options again, now leaving me with a fourth of the options as I had six months ago. I appreciated the additional stops along the 541 bus line that now let me get from home near Montlake to work near 156th Street on Microsoft's campus with a single ride and limited walking. However, removing the 541 will eliminate any direct route I have to get to work.
Related to S Kirkland P&R deviation	■ Extremely happy to have the 544 stopping by the South Kirkland P&R so I don't have to do some ridiculous transfer in UW that will make me catch the rail and drop me off in Seattle half a mile from my office. Also happy to alleviate the pressure on the 545 route, which has been hell to try to get on with the amount of people who ride that route. ■ The diversion of the 544 to the S. Kirkland P&R is unattractive. The 545 will be more attractive, certainly inbound, allowing walking from Stewart & Denny. The Metro 255 truncation is a horrible decision evenings and weekends. No one rides the 540, Metro is doubling down on that. ■ 544 would be an excellent route if the S Kirkland detour is removed. Those riders can take the 255 and transfer at Yarrow or Link. SLU service is a great addition

Route 566 Kennydale & Newport Hills Stops

To mitigate the effects of East Link construction, Sound Transit added these stops off-peak hours in the off-peak direction. The additional service pattern has proven complex and confusing to customers. Total daily ridership for the two stops is just 16 boardings, and the stops delay trips as buses must leave HOV lanes to access right-side exits. Route 560 would continue to serve those stops during all service hours. Most resp



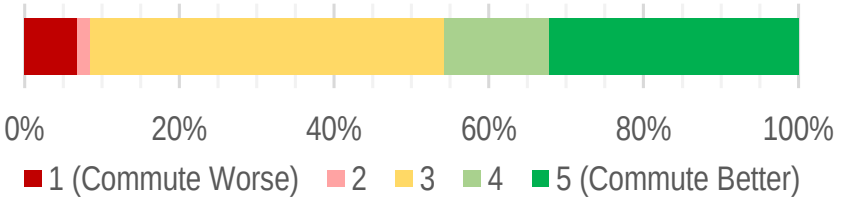
Additional Comments

After answering the survey respondents were asked if they had any additional comments. The following table presents the major themes and examples of response received within each theme from this open-ended section of the survey. In total, **25 respondents provided an additional comment** on the Route 566 stop discontinuation.

TOPIC	SAMPLE RESPONSES
In support for stop discontinuation	■ This will be great for me. I work in Bellevue and often rush to make the last "fast 566" at 8:33 in Renton. Service patterns at the stops is highly unusual, with 30 minute frequency all day and at peak, and 15 minute frequency at "shoulder peak." Also, with worsening traffic, 566 serving these stops often gets significantly delayed, and assumptions about traffic being good enough by the late morning after 8:30 and evening after 6pm being good enough is no longer true. ■ Delete these stops from route 560 as well. ■ It is confusing to sometimes have the bus go off the freeway when you don't expect it! Stay constant. ■ I use 566 regularly and barely noticed anyone using these stops. Discontinuing will reduce my commute time ■ Assuming the timetable doesn't change, it might actually make it possible to reach the Renton Transit Center to connect with the 148. MAYBE. Either way, these two stops cause a lot of confusion for the drivers who haven't done the route before. There have been many instances of drivers, during peak hour trips, making stopping at these stops. I don't think I've ever seen a time when a passenger thought they'd be getting off at those stops, so it just wastes time and causes myself and others to make their already tight connections to Metro buses in Renton.
Related to reduced service to Kennydale and Newport Hills	■ It is not appropriate to delete Kennydale stop since there is a P&R at that stop. ■ This is a silly and short-sighted move. I used to be one of the few riders relying on 566 service to Newport Hills, but ended up having to move to Seattle because of the poor and inconsistent bus service on this corridor, to which I connected at Bellevue Transit Center. The solution to this poor situation is better, more consistent service that will encourage transit riders to live in places so easily accessible by these freeway stations. Cutting off these communities (even 16 riders a day) just to save a one-minute freeway station stop is a cruel decision lacking in vision for the future of transit in the region. ■ Why is it confusing? Also maybe this makes sense for kennydale because there are no transit supportive land uses, but I think Newport should keep its stop since it has the park and ride. Maybe you need better rider education
Related to corridor reliability/crowding	■ 560 ridership is already crowded and the bus runs late with the new driver change / route removal. Please address these legitimate concerns. ■ ST needs to also review 567 routes. Many trips are over crowded.

Improving Auburn Weekend Service

Sound Transit would convert Route 577 to operate as Route 578 trips on Saturdays and Sundays. Current Route 578 trips would continue to serve Sumner and Puyallup, but the new Route 578 trips would end in Auburn. The change effectively doubles weekend service between Federal Way and Auburn and makes more efficient use of operator layover time. In addition, all trips would use the current 578 routing in downtown Seattle, and Sound Transit would eliminate the current weekend 577 routing via Pine Street.



Additional Comments

After answering the survey respondents were asked if they had any additional comments. The following table presents the major themes and examples of response received within each theme from this open-ended section of the survey. In total, **38 respondents provided an additional comment** on the Route 577 weekend service change.

TOPIC	SAMPLE RESPONSES
In support for expanded weekend service to Auburn	■ You guys should totally do this it's so unreliable to hop on 181 then catch 577 at Federal Way. Also consider adding more 577 578 services around the end of sounder services it's just always no space to sit. And if it's not going to affect too as for the time takes to get to Seattle you guys could turnacate 578 at Rainier Beach station if you can add more services. ■ This is very needed! The 578 on weekends is only hourly, and very crowded. The bulk of the passengers come from Auburn, and then Federal Way. My doctors are in Seattle, and when I have weekend appointments I either get there way too early, or late. When I get there early in the winter, it is cold and wet, and I usually joke that it defeats the purpose of going to the doctor in the first place. This will improve my access to my doctors, and not make me choose between spending more money to be able to sit in a cafe or being freezing cold waiting for the doctor's office to open. This would be amazing, and highly appreciated! ■ Hopefully this will prevent overcrowding on 578 to Sumner. Many times after a ball game we are turned away and have to wait for another bus. Gets concerning when it nears the last bus. ■ Another long-overdue revision based on demand/need.
Related to improving service to Sumner & Puyallup	■ ST needs to improve service between Auburn, Puyallup, and Tacoma. State Route 167 seems to be a logical route for an express bus. Tacoma is growing extensively, and it is incorrect for ST to continue to treat Tacoma as a bedroom community for Seattle. ■ We have needed more busses from Seattle to Sumner for a long time. This is a sorely needed alternative to the Sounder. ■ Look at feasibility of extending more than half of trips to serve Sumner and possibly Puyallup. Bike rack capacity on trips to Sumner is important for access to Foothills Trail in Pierce County.
Related to Sounder service on weekends	■ Consider weekend Sounder service in next service plan update. Also look at weekend bus service connecting the Sounder stations if weekend train service doesn't quite pencil out yet. ■ More Sounder service particularly between the first evening services and the second evening service also run the last train earlier than 6:30 adding another train around 7 also more weekend Sounder